

Woods Hole Oceanographic Institution  
ATLAS - GAZETTEER COLLECTION

## NOAA Technical Memorandum NMFS



**AUGUST 1987**

### **ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 1951**

David A. Ambrose, Richard L. Charter,  
H. Geoffrey Moser and Celeste R. Santos Methot

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INVESTIGATIONS SURVEY CRUISES IN 1951**

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## ABSTRACT

This report provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) cruises conducted off California and Baja California in 1951. It is the first report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 1368 stations were occupied during 12 monthly multivessel cruises over the quarter-million square mile survey area which extends from the California-Oregon border to Cape San Lucas, Mexico and seaward to several hundred miles. The data are listed in a series of 6 tables; the background, methodology, and information necessary for interpretation and quantitative analysis of the data are presented in an accompanying text. All pertinent station and tow data, including volumes of water strained and standard haul factors are listed in the first table. Another key table lists, by station and month, standardized counts of each of the 134 larval fish taxa identified from survey samples. This and subsequent reports will make the CalCOFI ichthyoplankton and station data available to all investigators and will serve as guides to the newly developed computer data base.

## INTRODUCTION

This report, the first of a series, provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) joint biological-oceanographic survey cruises conducted in 1951. This program was initiated in 1949 under the sponsorship of the Marine Research Committee of the State of California, to study the population fluctuations of the Pacific sardine (*Sardinops sagax*) and the environmental factors that may play a role in such fluctuations. CalCOFI, known as the California Cooperative Sardine Research Program from 1949 to 1953, was made up of representatives of the South Pacific Fisheries Investigations (SPFI) of the U.S. Fish and Wildlife Service [now the La Jolla Laboratory, National Marine Fisheries Service (NMFS)], the Scripps Institution of Oceanography (SIO), the California Department of Fish and Game (CDFG), the California Academy of Sciences (CAS) and the Hopkins Marine Station of Stanford University. The first three of these agencies supplied ships and personnel to conduct the sea surveys. NMFS processed the plankton samples and analyzed the ichthyoplankton from them. SIO processed and analyzed the hydrographic samples and measurements and also analyzed invertebrate groups from the plankton samples.

The boundaries, station placement, and sampling frequency for the CalCOFI survey area were based on the results of joint biological and oceanographic cruises conducted by NMFS and SIO during 1939-41. Those cruises were designed to collect sardine eggs and larvae and associated hydrographic data over the entire areal and seasonal spawning range of the species. On these survey cruises, plankton tows were made to 70 m, a depth which



encompassed the vertical distribution of sardine eggs and larvae. Wide-ranging joint biological and oceanographic survey cruises were resumed in 1949 with sardine as the focus; however, an increasing interest in other biological components resulted in the deepening of standard tows to 140 m in 1951. This marked the beginning of truly quantitative ichthyoplankton sampling on CalCOFI surveys.

Data resulting from CalCOFI surveys in 1951 have been published in a number of forms. Hydrographic data (Reid et al., 1963), zooplankton volumes (Staff, SPFI, 1952; Thrailkill, 1956; Smith, 1971) and ichthyoplankton data for selected species (Ahlstrom, 1953) were presented in standard formats. The latter lists counts for eggs and larvae of sardine and for larvae of northern anchovy (*Engraulis mordax*), jack mackerel (*Trachurus symmetricus*), Pacific mackerel (*Scomber japonicus*), Pacific hake (*Merluccius productus*), and rockfishes (*Sebastes* spp.). Also, length frequencies are listed for sardine and anchovy larvae. Distribution maps of larvae of 5 of these species taken on CalCOFI surveys during 1951 are presented in the CalCOFI Atlas series (Kramer and Ahlstrom, 1968; Ahlstrom, 1969; Kramer, 1970; Ahlstrom et al., 1978).

A computer data base for eggs and larvae of sardine and anchovy and for larvae of hake, and the two mackerels was established in 1969. The development of a data base for other fish larvae is a complex undertaking because competency of identification has evolved steadily over the past 38 years. We began the task of producing a CalCOFI ichthyoplankton data base and associated data report series in 1983. All available original records for 1951 were subjected to an extensive verification and editing process to produce this report. This and subsequent reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the computer data base. The data base will be modified when additional errors are discovered and when composite taxa from the earlier years are reidentified. These reports are the fundamental reference documents against which subsequent changes in the data base can be compared.

#### SAMPLING AREA AND PATTERN

In 1951, CalCOFI survey cruises were conducted at monthly intervals. A total of 1368 stations were occupied on 12 cruises, with an average of 120 stations per cruise (range of 65-170). Coverage of the survey station pattern varied among cruises and the entire quarter-million square mile survey area was not covered on any single cruise (Figures 1-13; Table 1). The area off northern California (lines 40-57) was covered on only two cruises made in July and August. Coverage off central California (lines 60-77) was more consistent with stations occupied monthly, except during February and March. The area between Pt. Conception, California and Pt. San Juanico, Baja California (lines 80-137) was surveyed monthly, except for



December when coverage extended south only to San Cristobal Bay (line 123). The area off southern Baja California (lines 140-157) was surveyed in March, June, and September. Coverage extended seaward to stations 120 or 130 (approximately 300-400 miles offshore) on some lines in the main sampling area but typically did not extend beyond station 90 (approximately 160-250 miles offshore)<sup>1</sup>. Offshore coverage was greatest between January and July and generally diminished during later cruises.

Six vessels were employed on these cruises: the *Black Douglas*, of NMFS, the *Crest*, *Horizon*, and *Paolina T* of SIO, and the *N. B. Scofield* and *Yellowfin* of CDFG. Two to four vessels participated on each cruise with three being the usual number. The *Crest* was used on all cruises except 5112 and the *Black Douglas* on all but 5101 and 5112. The other four vessels participated on a total of 13 cruises (Ahlstrom, 1953).

### SAMPLING GEAR AND METHODS

The standard CalCOFI net used from 1949 to 1969 had a 1-m diameter mouth opening (0.785 m<sup>2</sup> area) and an overall length of about 5 m. The net was constructed of 30xxx gauze, a heavy duty grade of silk bolting cloth, with a mesh size of 0.55 mm after shrinkage. The last 40 cm of the cone and the cod end were constructed of 56xxx grit gauze which had a mesh size of 0.25 mm after shrinkage. The net ring was fastened to a short 3-lead bridle connected to several meters of line which attached to the towing cable by a clamp. A current meter was suspended in the center of the net mouth to measure volume of water filtered (see Kramer et al., 1972, for further details).

The standard tow from 1951 through 1968 was an oblique haul to 140 m depth (to 15 m of the bottom in shallow areas) designed to filter a constant amount of water per depth interval (ca. 3m<sup>3</sup>/m of depth) over the vertical range of most ichthyoplankters. Hauls were made at a ship speed of 1.5-2.0 knots and initiated by clamping the net line to the towing cable with the 45 kg terminal

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<sup>1</sup>CalCOFI lines are arranged perpendicular to the coastline and extend from the Canadian border (line 10) to below Cape San Lucas, Baja California (line 157). Stations were established on the basis of a perpendicular to line 80 (off Pt. Conception) at a point designated as station 60. Stations were plotted seaward and shoreward from station 60 on each line. Cardinal CalCOFI lines (those ending in "0") are 120 miles apart and usually bracket two ordinal lines (ending in "3" or "7", so that lines are 40 miles apart over most of the pattern. Cardinal stations are 40 miles apart and typically these are separated by a station number ending in "5" so that stations are 20 miles apart out to station 90 on most lines. Stations are placed at closer intervals near the coast and islands to accommodate these features (see Kramer et al., 1972 for further details).

weight about 10-15 m below the surface. The net was lowered to 140 m depth by paying out 200 m of wire over a 4 minute period (35 m of depth/min.). After fishing at depth for 30 seconds, the net was retrieved at 20 m/min. (14 m depth/min.). The angle of stray of the towing cable was recorded every 30 seconds and maintained at  $45^{\circ}$  ( $\pm 3^{\circ}$ ) by adjusting the ship speed and course. After reaching the surface, the net was washed down and the samples preserved in 5% formalin buffered with sodium borate. Flowmeter readings were made at the beginning and end of each tow. Detailed descriptions of gear and methods are given by Ahlstrom (1953), Kramer et al. (1972), and Smith and Richardson (1977).

## LABORATORY PROCEDURES

Laboratory processing began with the determination of a displacement volume for each sample (methods described in Staff, SPFI, 1953 and Kramer et al., 1972). Zooplankton volumes (including ichthyoplankton) of samples collected in 1951 are listed in Staff, SPFI (1952) and presented graphically in Thrailkill (1956) and Smith (1971).

Sorting involved the removal of ichthyoplankton from the sample and identification and separation of eggs and larvae of selected species (see introduction). Usually, each sample was sorted completely; however, some of the samples were fractioned into aliquots using a Folsom plankton splitter (McEwen et al., 1954) prior to sorting. Several criteria<sup>2</sup> were used to determine whether a sample was fractioned: samples containing an abundance of thaliacians and coelenterates and exceeding 150 ml in total plankton volume were fractioned (to 50%, 25%, 12.5%, or 6.25%) to approximate a reduced volume of 50 ml for sorting; samples with an excessive quantity of fish eggs and/or larvae were occasionally fractioned to expedite the sorting process in order to meet scheduled deadlines. If the identified fraction of an aliquot yielded rare or interesting species of fish larvae, the remaining fraction was frequently sorted and identified with the intent of finding additional specimens. Aliquot percentages for fractioned samples from 1951 are listed in Table 1 under the "Percent Sorted" column.

A "standard haul factor" (SHF) was calculated for each tow to make them comparable and allow estimations of areal abundance. This factor adjusts the number of eggs or larvae in a haul to the number in  $10\text{ m}^3$  of water strained per meter of depth fished. If the vertical distribution of the species has been encompassed, then the adjusted value is equivalent to the number under  $10\text{ m}^2$  of sea surface. The SHF is calculated for each haul by the formula:

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<sup>2</sup>Personal communication, James R. Thrailkill, National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, CA.



$$SHF = \frac{10 D}{V}$$

where D = depth of haul = cosine of the average angle of stray of the towing cable multiplied by cable length (m)

V = total volume of water (m<sup>3</sup>) strained during the haul

$$V = R \cdot a \cdot p$$

where R = total number of revolutions of the current meter during the haul

a = area (m<sup>2</sup>) of the mouth of the net

p = length of column of water (m) needed to produce one revolution of the current meter.

Tow depth, volume of water strained, and standard haul factor are listed in Table 1 for each tow taken during 1951. Detailed descriptions of factors involved in calculating these values are presented in Ahlstrom (1948), Kramer et al. (1972), and Smith and Richardson (1977).

## IDENTIFICATION

Identification of ichthyoplankton species beyond those separated during the sorting process was carried out by a separate group of specialists. Ontogenetic stages of fishes are inherently difficult to identify and this is further complicated by the large number and diversity of species which contribute to the ichthyoplankton of the California Current region. Most identifications were accomplished by establishing ontogenetic series on the basis of morphology, meristics, and pigmentation and then identifying these series by relating them to known metamorphic, juvenile, or adult stages with overlapping features (Powles and Markle, 1984). A total of about 118 taxa were identified in 1951, with 63 taken to species, 26 to genus, 25 to family, and 4 to order (after present corrections 132, 67, 29, 31, 5, respectively). Some of the developmental series recognized at the time could not be assigned scientific names, particularly in the Bathylagidae, Myctophidae, and Pleuronectiformes. These were given descriptive names, which later were changed to scientific names as they became known. Knowledge of the ontogenetic stages and of the taxonomy of the regional ichthyofauna have increased markedly over the years so that we now identify twice the number of taxa known in 1951.

The task of producing a reliable and equitable ichthyoplankton data base required extensive procedures to verify, correct, and edit the original identifications. The



primary data source was the original identification sheets (see Kramer et al., 1972, for examples); however, a critical resource used in all phases of this process was the SWFC ichthyoplankton collection in which the CalCOFI samples are archived. Throughout the course of CalCOFI ichthyoplankton studies, samples have been identified to the lowest taxon possible. In reviewing these identifications for the data base, our approach has been conservative and we have preserved those identifications and counts which we could confirm, while correcting as many of the errors as possible. During the coding of the identification sheets, the "descriptive types" were assigned scientific names and reexamined, if necessary. After computer entry, taxonomic errors and inconsistencies in the data base were corrected and the most obvious identification errors were corrected. Our current knowledge of ichthyoplankton techniques coupled with a precise understanding of the development of identification competency in the program over the years allowed us to critically judge the historical records. Identifications were changed to different taxa, lumped to a higher taxonomic category, or given a more precise taxonomic name. In many cases, identifications of a taxon were inconsistent among cruises in a year, because of varying competency of identifiers. These records were made equitable by lumping to the higher taxonomic category to avoid biases that could result in quantitative misinterpretations.

Next, statistical, seasonal, and geographic outliers were identified, employing a series of graphic summaries and listings. Examination of geographic outliers proved to be especially effective because of our accumulated knowledge of species distributions. In the course of examining samples for these outliers, other identification errors were discovered and eventually all taxa were scrutinized to some extent. Lastly, certain taxa were reexamined in all samples for the entire CalCOFI time series. These taxa were selected because of their commercial, ecological, phylogenetic, or zoogeographic importance or because taxonomic confusion was at the ordinal level. The following is a list of the taxa for 1951 which received special attention, with explanations and caveats intended to aid in quantitative interpretations:

Anguilliformes - tentative and sporadic identifications to family or lower taxon lumped to order.

*Sardinops sagax* - all specimens south of line 120 checked for misidentification of *Opisthonema* spp.

Engraulidae - includes nearshore taxa (mostly *Anchoa* spp.) large enough to separate from *Engraulis mordax*. Some nearshore samples of small *E. mordax* may contain other anchovy genera, but could not be differentiated.

*Nansenia* spp. - all specimens checked and identified as *N. candida* or *N. crassa*; all specimens of these species near their range boundaries checked.

*Bathylagus wesethi* - all listings of *B. nigrigenys* were southern specimens of *B. wesethi*.

Sternoptychidae - tentative and sporadic identifications of hatchetfishes to genus were lumped to family.

*Bathophilus* spp. - all specimens checked.

*Tactostoma macropus* - all specimens checked.

Scopelarchidae - tentative and sporadic identifications to genus lumped to family.

*Lampanyctus* spp. - tentative and sporadic identifications to species (mostly descriptive types) lumped to genus.

*Diogenichthys atlanticus* - all specimens at margins of range checked.

*Diogenichthys laternatus* - all specimens at margins of range checked.

*Electrona rissoi* - recognition of this species was inconsistent and others may be included in *Protomyctophum crockeri* or Myctophidae.

*Hygophum* spp. - all specimens reidentified to species; residuals are small, poorly preserved specimens.

*Myctophum aurolaternatum* - all specimens of "Astronesthidae" proved to be this species.

*Protomyctophum crockeri* - some samples on northern lines may contain *P. thompsoni*, which was not identified at the time.

*Symbolophorus californiensis* - all specimens south of line 120 checked for confusion with *Hygophum* spp., stemming from descriptive names.

*Bregmaceros* spp. - all gadiform types (see Index), except *Merluccius productus* and Macrouridae, reexamined.

Ophidiiformes - this category did not exist originally and ophidiiform larvae were included in *Brosmophysis marginata*, Carapidae, "Otophidium", "Zoarcidae", and "blenny"; identifications of *B. marginata* and Carapidae proved to be mostly correct and "Zoarcidae" to be a yet unidentified ophidiiform species; all "Otophidium" and "blenny" were reexamined and the former included *Ophidion scrippsae*, *Chilara taylori* and other ophidiiform taxa (moved to order); "blenny" contained *O. scrippsae*, *C. taylori*, and other ophidiiform taxa in addition to true blennioids.

Ceratioidei - identifications of this group were inconsistent and additional specimens may be in the unidentified fish larva category.

Hemiramphidae - all specimens checked.

Trachipteridae - tentative and sporadic identifications to genus were lumped to family.

*Melamphaes* spp. - all identifications ascribed to Melamphaidae were reexamined and assigned to genus (*Melamphaes*, *Poromitra*) or species (*Scopelogadus bispinosus*).

Cottidae - some samples may include specimens of *Scorpaenichthys marmoratus*, hexagrammids (e.g., *Oxylebius pictus*, *Zaniolepis* spp.), and some blennioids (e.g., *Hypsoblennius* spp.).

Hexagrammidae - primarily *Hexagrammos* spp.

Scorpaenidae - now includes genera (*Pontinus*, *Scorpaena*, *Scorpaenodes*) other than *Sebastes*; some of these other genera remain in *Sebastes*, particularly on southern lines.

*Sebastes* spp. - in addition to other scorpaenid genera, category includes some misidentified *Sebastolobus* spp., *Prionotus* spp., serranids, scombrids, and other spiny-headed shorefishes, particularly in samples south of line 120.

Blennioidei - this is the residual of the completely reexamined "blenny" category, which also contained various misidentified ophidiiforms, and is now restricted to members of northern stichaeioid families and true blennioids (other than *Hypsoblennius* spp.) in the southern part of the pattern).

*Hypsoblennius* spp. - some specimens remain in Cottidae.

Clinidae - some specimens remain in Cottidae or unidentified fish larva category.

Labridae - tentative and sporadic identifications to genus were lumped to family.

*Chromis punctipinnis* - records south of about line 120 may include other pomacentrid taxa.

*Mugil* spp. - all specimens checked.

Apogonidae - all specimens checked.

Carangidae - all specimens checked; tentative and sporadic identifications to genus or species (except *Trachurus symmetricus*) were lumped to family.



Gerreidae - larvae of this family and other shorefishes (e.g., Haemulidae, *Girella nigricans*, *Caulolatilus princeps*, Mullidae, Priacanthidae) were not identified and may be in the unidentified fish larva category or may be misidentified as *Sebastes* spp., Cottidae, etc.

Sciaenidae - this family is underrepresented and some specimens may be in the unidentified fish larva category or may have been misidentified as *Sebastes* spp., Serranidae, etc.

Scombridae - all larvae identified to this family or constituent taxa (except *Scomber japonicus*) were reexamined and reassigned; underrepresentation or absence of these taxa may be attributed to misidentification or they may be in the unidentified fish larva category.

Nomeidae - absence of this family attributed to misidentification or placement in unidentified fish larva category.

Pleuronectiformes - all available specimens of this category (originally called "flatfish") were examined and reidentified; residuals are small, poorly preserved specimens.

Bothidae - all specimens examined and reassigned; most were assigned to various paralichthyid genera or to *Bothus* spp.

*Citharichthys* spp. - tentative and sporadic identifications to species were lumped to genus, which also includes *Etropus* spp. and some other flatfish taxa (e.g., *Parophrys vetulus*).

*Hippoglossina* spp. - all specimens of this genus (originally called "pigmented bothid") were examined and those not assigned to *H. stomata* were left at the genus (probably are *H. tetropthalmus*).

*Paralichthys* spp. - all specimens of this genus were examined and most were assigned to *P. californicus* or *Xystreurys liolepis*.

*Syacium ovale* - all specimens examined (originally called "spiny-headed bothid").

*Xystreurys liolepis* - originally misidentified as *Paralichthys californicus*; all specimens reidentified.

*Glyptocephalus zachirus* - all specimens examined.

*Microstomus pacificus* - all specimens examined.

*Pleuronichthys* spp. - all larvae of this genus and constituent species were examined and assigned to species; residuals are small, poorly preserved specimens.

*Psettichthys melanostictus* - absence of this species may be explained by misidentification with other flatfish species

(e.g., *Lyopsetta exilis*) which we did not reexamine systematically.

### COMPUTER ENTRY AND EDITING

Each taxon on the original identification sheets was given a 3-digit code based on the list of codes in Haight et al. (1979). Taxon codes and counts from these sheets were keypunched by cruise and station, along with pertinent station and tow data and entered into the VAX 11/780 computer at the University of California, San Diego Computing Center. After entries were completed for an entire year, print-out listings of taxa and counts on each station were compared with the original data sheets to eliminate keypunch errors. Next, data in the file were cross-checked with data on an existing file which contained: station and tow data; numbers of eggs of sardine, anchovy, and saury (*Cololabis saira*); numbers of larvae of sardine, anchovy, hake, jack mackerel, and Pacific mackerel; total number of fish eggs; and total number of fish larvae.

Discrepancies in ichthyoplankton data in these two files were corrected by inspecting original records from the sorting laboratory, the original ichthyoplankton identification sheets, and the samples themselves. Station and tow data discrepancies between the two files were corrected by reviewing ships logs and deck tow sheets, original records from the sorting laboratory, cruise announcements, publications, header information on the ichthyoplankton identification sheets, and station plots generated for each cruise. Eventually all station and tow data were checked by comparing these sources.

The corrected ichthyoplankton data base was then examined statistically and outliers were found and checked as above. Distributional plots were then prepared for each taxon and these were checked by reviewing the data sources mentioned above and by examining archived specimens. A listing of each taxon by station (Table 4) was produced, which became the primary document for subsequent checks. Misidentifications found in geographic outlier checks and other misidentifications and data problems discovered in the course of examining archived samples resulted in several iterations of Table 4. Finally, totals in Table 4 were checked against annual summaries of incidence and abundance (Tables 2 and 3). Ecological analyses of the data (Moser et al., 1987) were conducted concurrently with editing procedures and provided cross-checks that allowed correction of errors.

### SPECIES SUMMARY

Larvae of Pacific hake (*Merluccius productus*) represented 24% of all fish larvae taken on CalCOFI cruises during 1951 and numbered twice as many as northern anchovy (*Engraulis mordax*), the next most abundant species (Tables 2, 3). Hake incidence was comparatively low (11th) as was anchovy incidence (7th),



indicating relatively large sample sizes. The next most abundant species, *Vinciguerria lucetia*, a midwater gonostomatid, was widespread in samples from the southern part of the CalCOFI pattern and ranked 4th in occurrence. Jack mackerel larvae ranked 4th in abundance and 8th in occurrence. Larvae of *Sebastes* spp., a composite of about 70 species, ranked 5th in abundance and 1st in occurrence. The next most abundant were three midwater species, a deepsea smelt (*Leuroglossus stilbius*) and two lanternfishes (*Stenobranchius leucopsarus* and *Triphoturus mexicanus*), ranking 6th, 7th, and 8th, respectively. The latter ranked 2nd in occurrence. Sardine larvae ranked 9th in abundance but only 21st in occurrence, indicating large sample sizes. The 10th ranked taxon was the sanddab genus *Citharichthys*, a composite of about 6 species whose distributions in aggregate cover most of the CalCOFI pattern. These 10 top-ranking taxa contributed 84.2% of all larvae taken during 1951. The remaining 15.8% is represented by 124 taxa. Of the 10 taxa, 4 were midwater species, 3 were coastal demersal species or generic groupings, and 3 were coastal pelagic species.

#### EXPLANATION OF TABLES

Table 1 - This table lists the pertinent station and tow data for 1951, the volume of water filtered and standard haul factor for each tow, the percent of sample sorted, and the total numbers of fish eggs and larvae. CalCOFI cruises are designated by four digits; the first two indicate the year and the second two the month. Within each cruise the data are listed in order of increasing line and station number (southerly and seaward directions); the order of station occupancy is shown on the station charts (Figures 2-13). Stations are designated by two groups of digits; the first set indicates the line and decimal fraction, if necessary, and the second set indicates the station on the line. Decimal fractions were not used in 1951. Time is listed as Pacific Standard Time at the start of each tow in 24-hour designation. Methods for determining tow depth, volume of water strained, standard haul factor, and percent sorted were described in the methods section. The values for total fish eggs and larvae represent raw counts (unadjusted for percent sorted or standard haul factor). Ship codes are as follows: BD, *Black Douglas*; CR, *Crest*; HO, *Horizon*; PT, *Paolina T*; YE, *Yellowfin*; 47, *N. B. Scofield*.

Table 2 - This table lists pooled occurrences of all larval fish taxa taken during 1951 in ranked order.

Table 3 - This table lists pooled counts of all larval fish taxa taken during 1951 in ranked order. Numbers are adjusted for percent sorted and standard haul factors.



Table 4 - This table gives numbers of fish larvae for each taxon, listed by station and month. Counts are adjusted for percent of sample sorted and standard haul factor. Average values are given for stations occupied more than once during a month. See Table 1 for station and tow data and Table 6 for listing of stations with double occupancies during a month. The orders are listed in "phylogenetic" sequence modified from Nelson (1984). Subtaxa within each order are listed alphabetically. Page numbers for each taxon are given in the index at the end of the report.

Table 5 - This table is a summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1951 to 1960. Taxa are listed in the same order as in Table 4.

Table 6 - List of stations which were occupied twice in one month during 1951. Ship codes are given in explanation for Table 1.

#### ACKNOWLEDGMENTS

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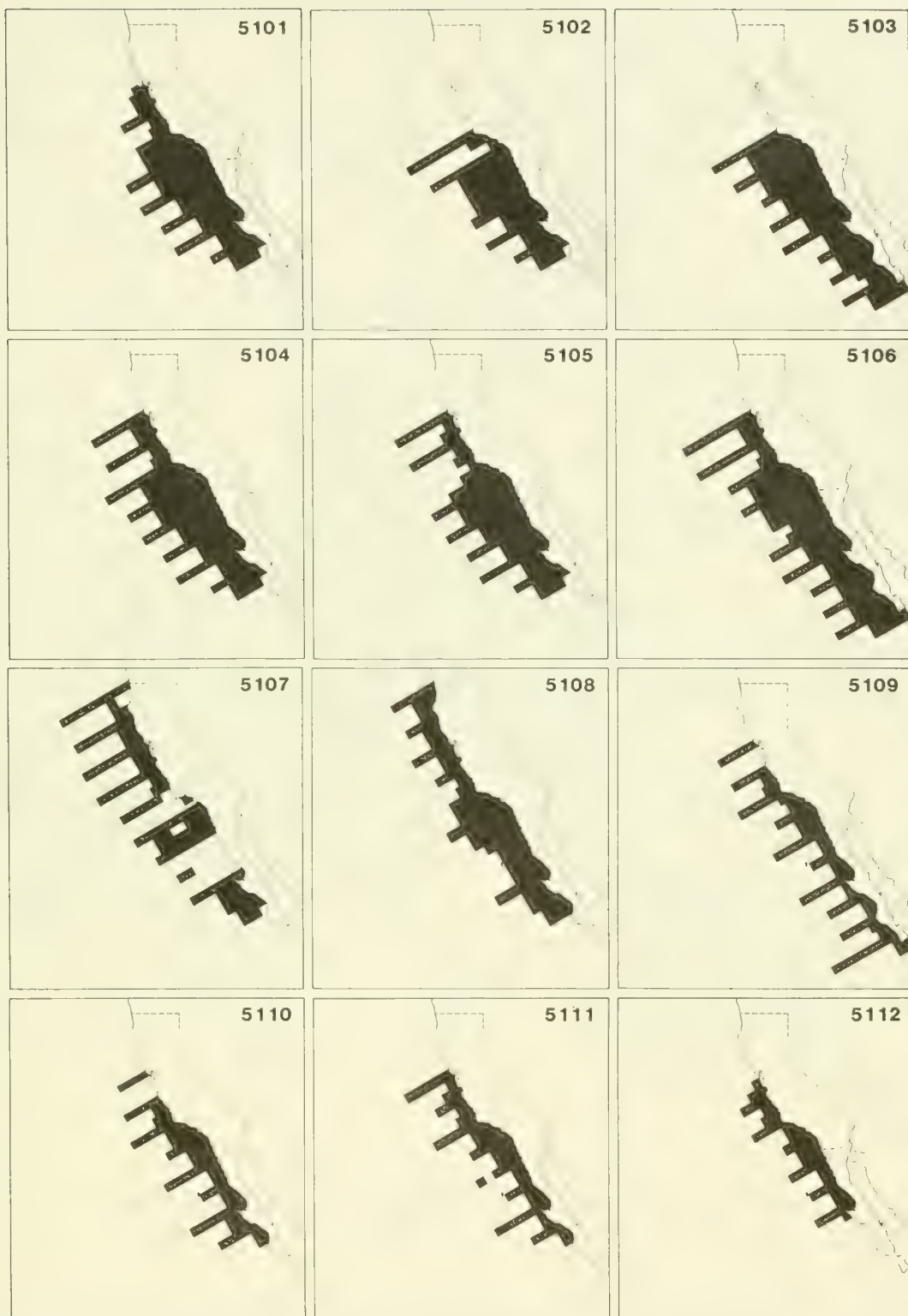


Figure 1. Composite arrangement of diagrammatic charts showing areas sampled on each CalCOFI cruise during 1951.



Figure 2. Station pattern for CalCOFI Cruise 5101 showing tracks for each vessel. Stations with plankton tows only are indicated by a dot; those with plankton tows and hydrographic measurements are shown by a dot and circle. Modified from charts in *Oceanic Observations of the Pacific* (Reid *et al.*, 1963) to include only those stations listed in Table 1 of this report.

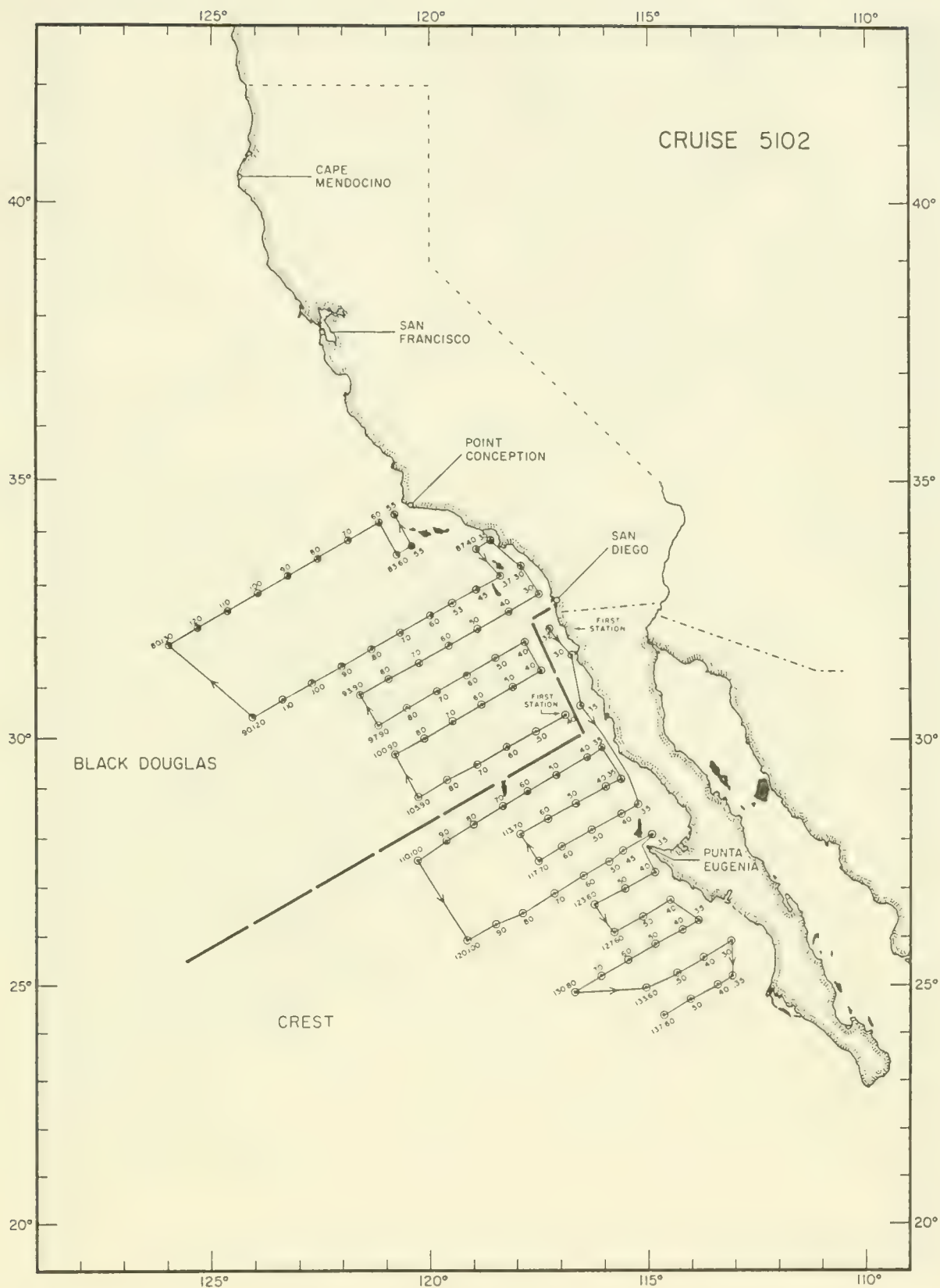


Figure 3. Station pattern for CalCOFI Cruise 5102. Symbols as in Figure 2.



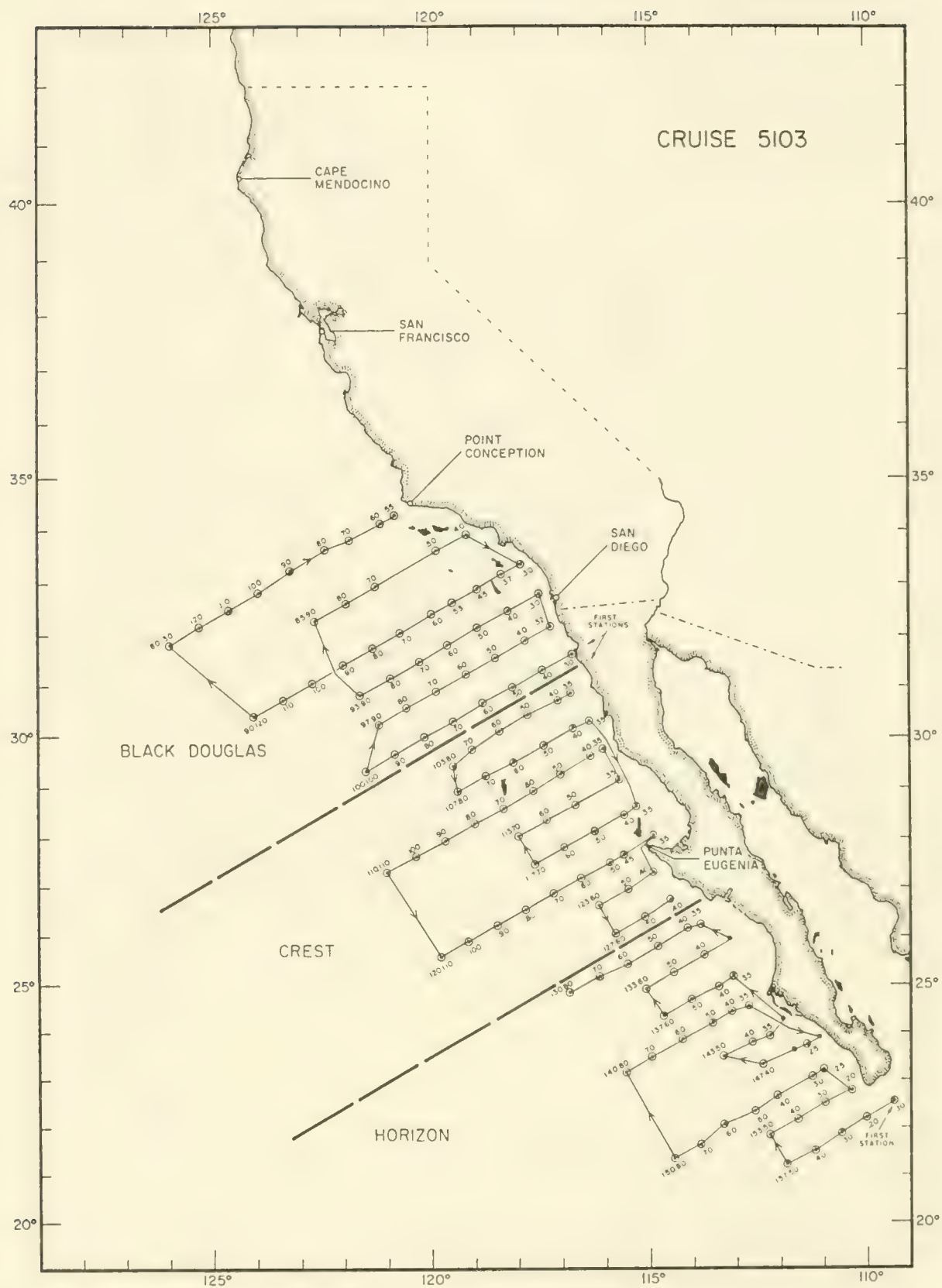


Figure 4. Station pattern for CalCOFI Cruise 5103. Symbols as in Figure 2.







Figure 6. Station pattern for CalCOFI Cruise 5105. Symbols as in Figure 2.

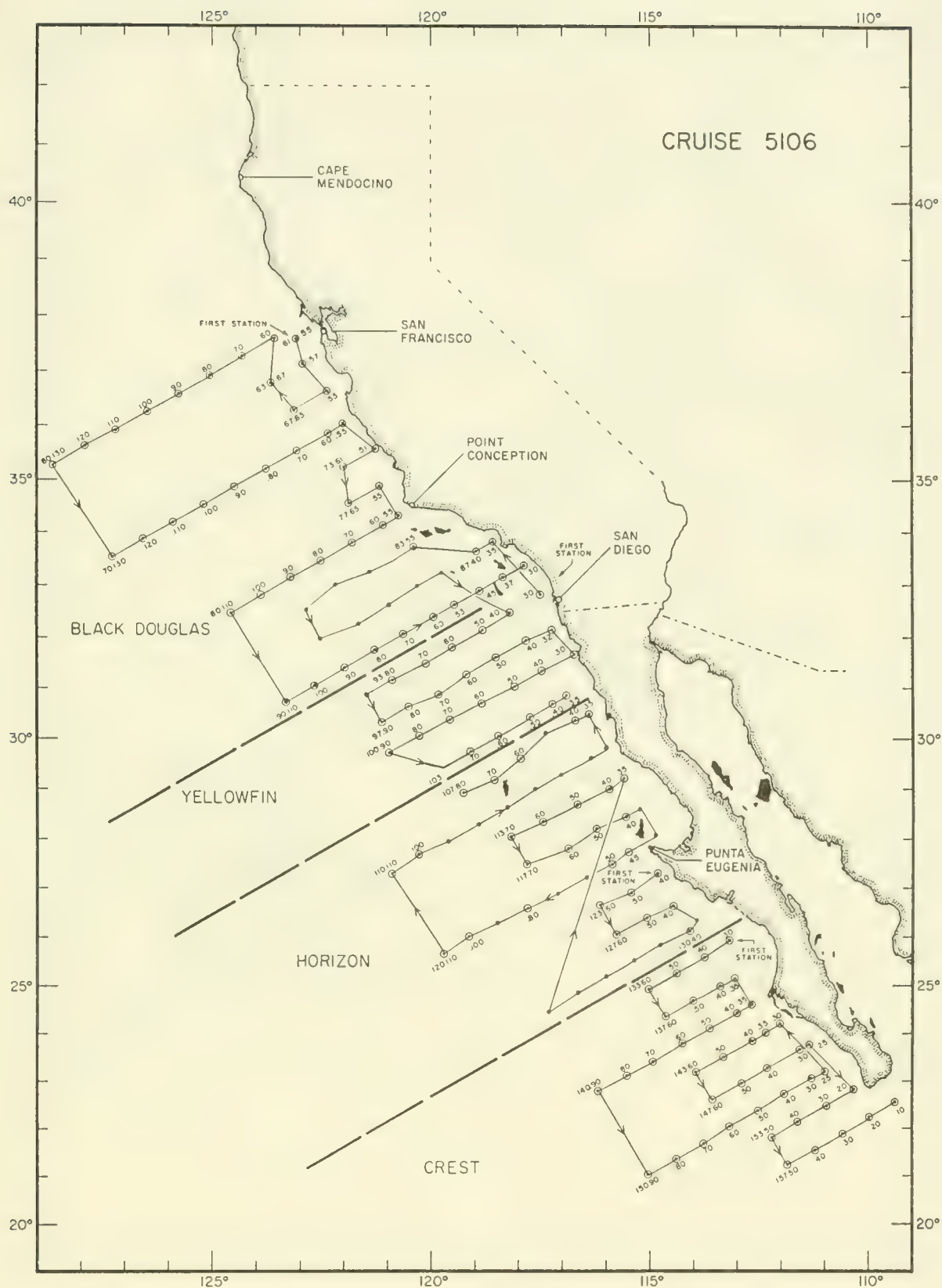


Figure 7. Station pattern for CalCOFI Cruise 5106. Symbols as in Figure 2.



Figure 8. Station pattern for CalCOFI Cruise 5107. Symbols as in Figure 2.





Figure 9. Station pattern for CalCOFI Cruise 5108. Symbols as in Figure 2.

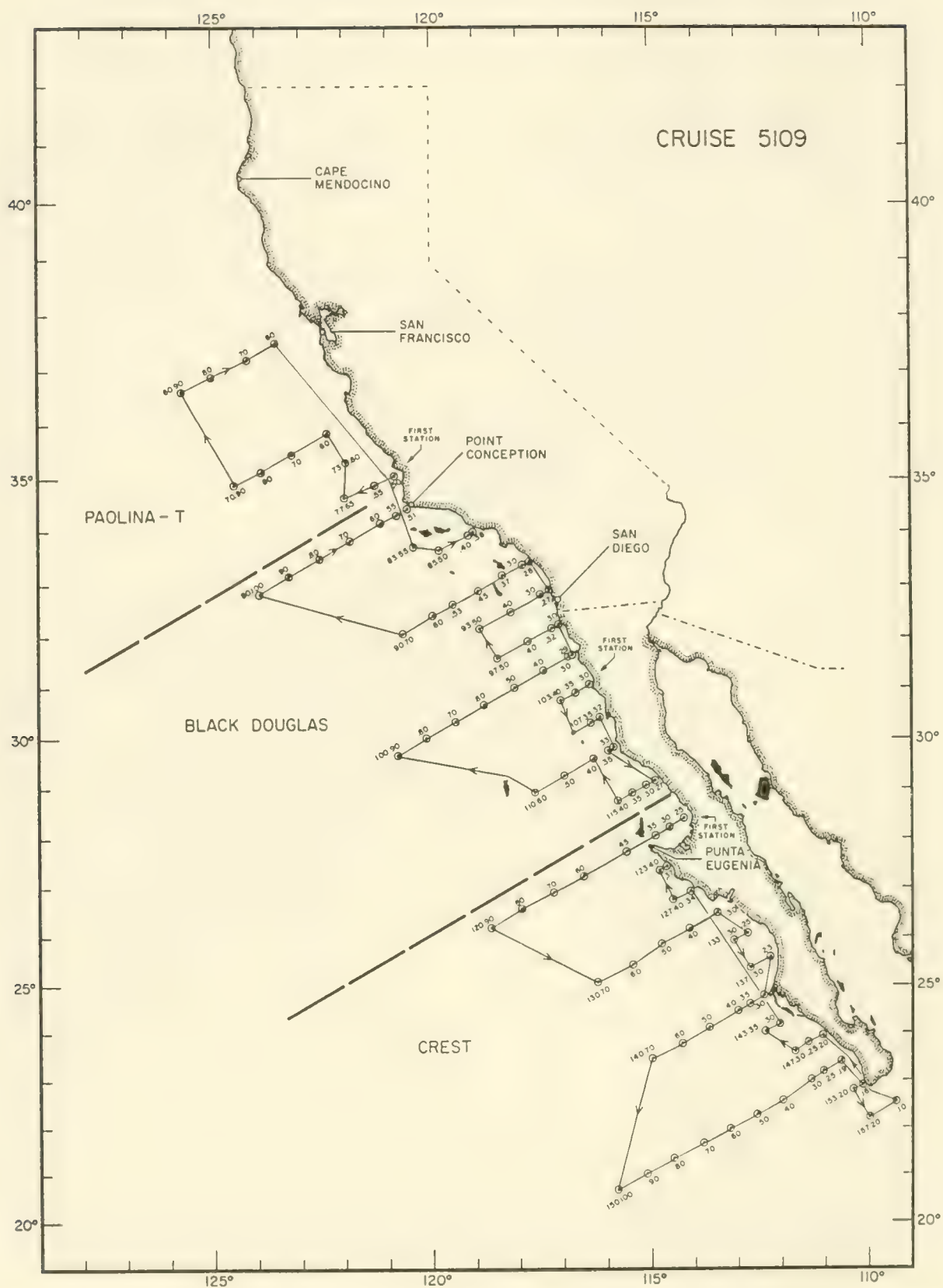


Figure 10. Station pattern for CalCOFI Cruise 5109. Symbols as in Figure 2.

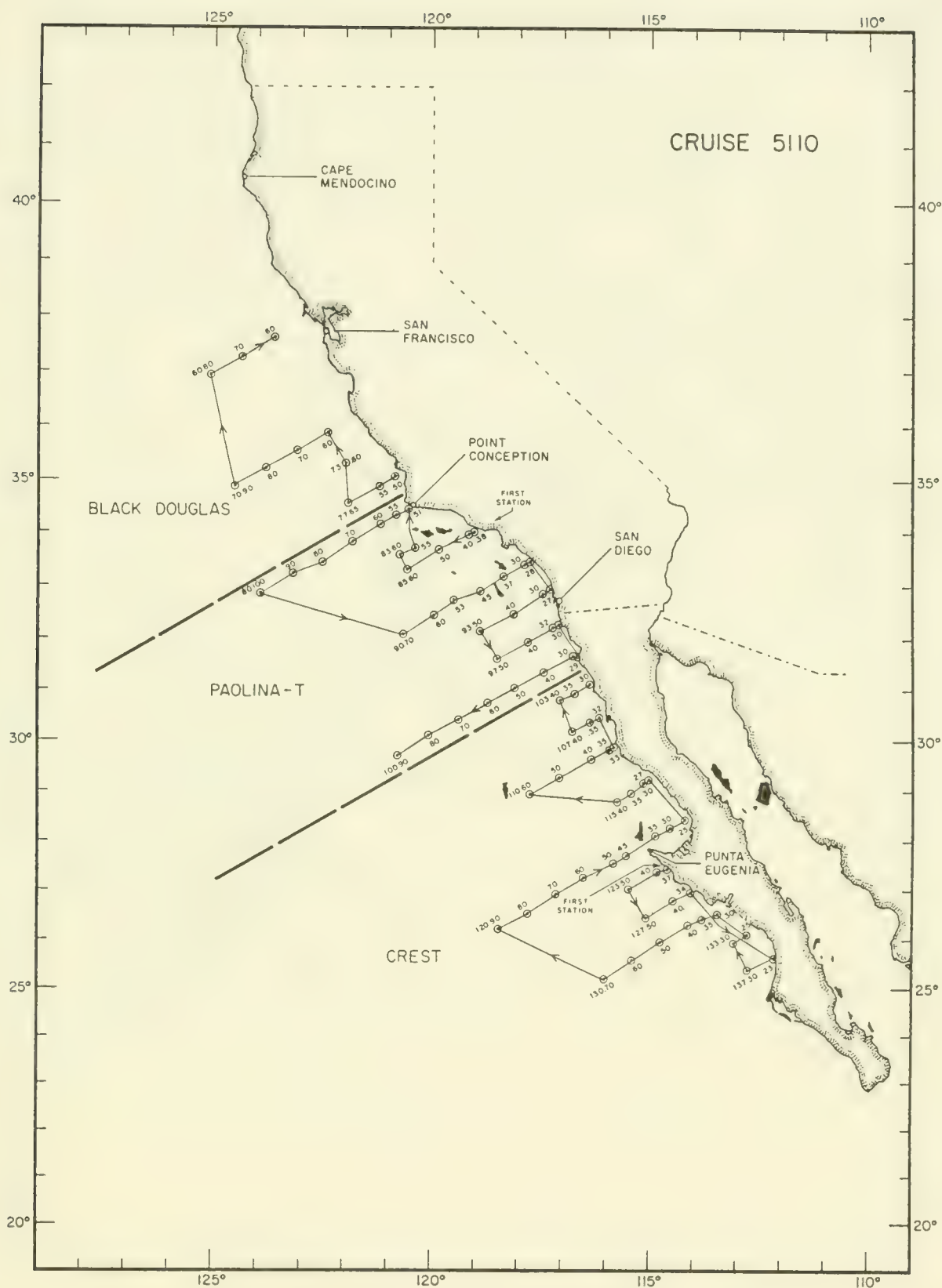


Figure 11. Station pattern for CalCOFI Cruise 5110. Symbols as in Figure 2.





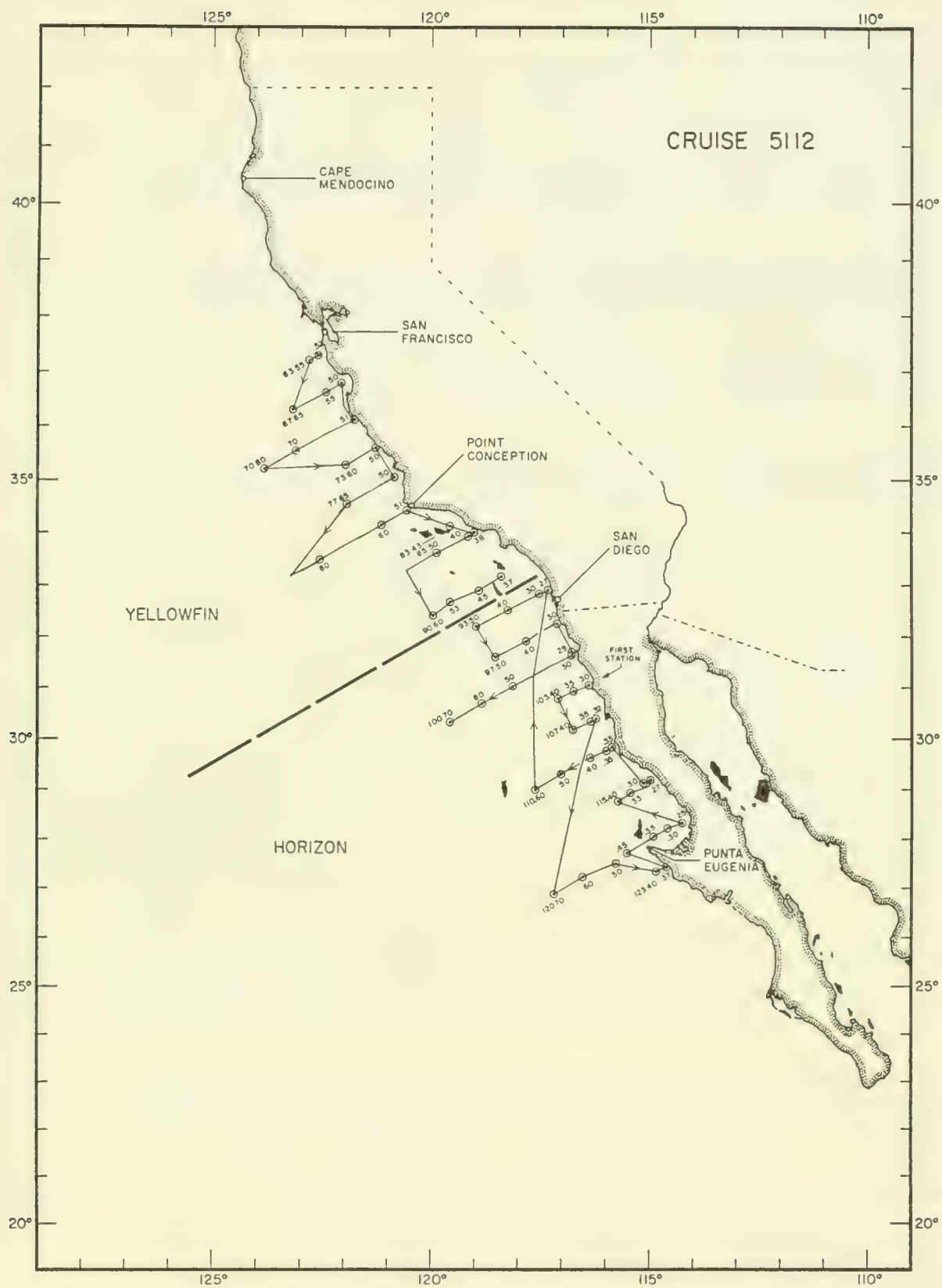


Figure 13. Station pattern for CalCOFI Cruise 5112. Symbols as in Figure 2.

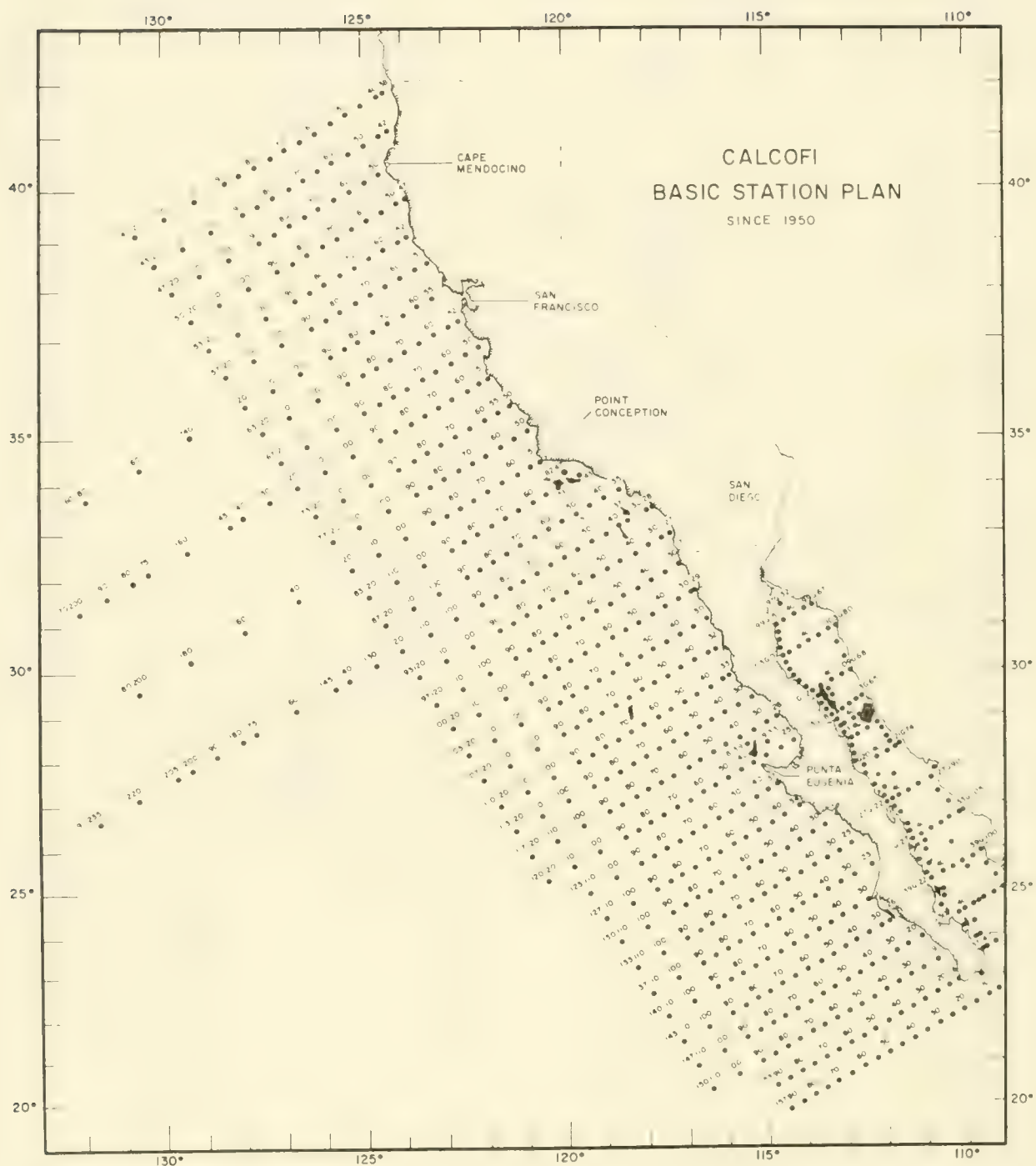


Figure 14. The basic station plan for CalCOFI cruises from 1950 to the present.



TABLE 1. Station and plankton tow data for CalCOFI cruises in 1951. Counts for fish eggs and larvae are not adjusted for standard haul factor or percent of sample sorted.

CalCOFI Cruise 5101												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	60.0	37 37.0	123 37.0	47	51 01 29	1126	141	771	1.83	100.0	34	4
61.0	55.0	37 37.0	123 07.5	47	51 01 29	0519	155	551	2.81	100.0	116	18
63.0	57.0	37 12.0	123 00.0	47	51 01 28	2350	132	781	1.70	100.0	17	92
63.0	67.0	36 49.0	123 41.0	47	51 01 28	1745	142	664	2.13	50.0	26	52
67.0	55.0	36 39.0	122 26.0	47	51 01 28	0404	105	999	0.95	50.0	45	72
67.0	65.0	36 15.0	123 14.0	47	51 01 28	1041	127	854	1.48	100.0	1	6
70.0	55.0	36 03.0	122 02.0	47	51 01 27	2056	134	827	1.62	50.0	58	17
70.0	60.0	35 53.0	122 23.0	47	51 01 27	1641	134	765	1.76	100.0	74	186
70.0	70.0	35 28.0	123 07.0	47	51 01 27	0858	120	868	1.39	50.0	19	9
70.0	80.0	35 10.0	123 49.0	47	51 01 27	0222	147	632	2.32	100.0	28	40
70.0	90.0	34 53.0	124 30.0	47	51 01 26	1817	139	758	1.83	100.0	7	72
73.0	51.0	35 35.5	121 20.0	47	51 01 24	0538	134	715	1.87	100.0	459	4
73.0	61.0	35 18.0	122 05.0	47	51 01 24	1205	131	912	1.44	100.0	25	131
77.0	55.0	34 57.0	121 20.0	47	51 01 23	2247	130	709	1.84	100.0	22	10
77.0	65.0	34 34.0	121 55.0	47	51 01 24	1455	128	759	1.69	100.0	20	16
80.0	55.0	34 19.0	120 48.0	47	51 01 23	0116	143	704	2.04	100.0	41	6
80.0	60.0	34 09.0	121 09.0	47	51 01 24	0806	129	792	1.62	100.0	97	287
80.0	70.0	33 47.5	121 49.0	47	51 01 25	1427	134	774	1.73	100.0	0	15
80.0	80.0	33 25.0	122 30.0	47	51 01 25	0002	129	841	1.53	100.0	1	7
80.0	90.0	33 09.0	123 13.0	47	51 01 26	0030	133	800	1.66	100.0	4	20
83.0	60.0	33 34.0	120 45.0	47	51 01 22	1755	138	805	1.71	100.0	303	230
83.0	70.0	33 14.0	121 27.0	47	51 01 21	0939	148	868	1.71	100.0	15	16
83.0	80.0	33 00.0	122 20.0	47	51 01 21	0229	125	861	1.45	100.0	2	12
83.0	90.0	32 34.5	122 40.0	47	51 01 21	0510	130	800	1.62	100.0	3	4
87.0	35.0	33 50.0	118 37.5	47	51 01 18	2325	148	893	1.65	100.0	445	0
87.0	40.0	33 40.0	118 58.5	47	51 01 19	0510	147	769	1.91	100.0	256	0
87.0	60.0	33 00.0	120 21.5	47	51 01 19	1917	140	674	2.08	100.0	10	55
87.0	70.0	32 37.0	121 02.0	47	51 01 20	0444	137	722	1.90	100.0	3	9
87.0	80.0	32 22.0	121 45.0	47	51 01 20	1300	119	957	1.25	100.0	1	6
87.0	90.0	31 59.0	122 24.0	47	51 01 20	1932	140	732	1.92	100.0	1	3
90.0	30.0	33 23.7	117 52.7	CR	51 01 19	1101	141	714	1.98	100.0	157	3314
90.0	37.0	33 11.0	118 23.4	CR	51 01 18	0951	143	700	2.05	100.0	177	2656
90.0	45.0	32 56.8	118 56.0	CR	51 01 18	0521	141	714	1.98	100.0	141	2833
90.0	53.0	32 38.5	119 29.0	CR	51 01 18	0030	138	757	1.82	50.0	62	29
90.0	60.0	32 23.5	119 53.5	CR	51 01 17	2011	137	750	1.83	100.0	37	8
90.0	70.0	32 06.0	120 42.5	CR	51 01 17	1236	139	721	1.93	100.0	21	10
90.0	80.0	31 40.0	120 55.0	CR	51 01 17	0826	140	774	1.80	100.0	14	29
90.0	90.0	31 21.1	121 43.2	CR	51 01 17	0251	140	791	1.77	100.0	2	3
90.0	100.0	31 03.0	122 31.5	CR	51 01 16	2121	141	753	1.87	100.0	11	13
90.0	110.0	30 44.2	123 20.0	CR	51 01 16	1556	143	714	2.01	100.0	2	19
90.0	120.0	30 25.9	124 04.4	CR	51 01 16	0836	147	745	1.97	100.0	6	12
93.0	30.0	32 49.3	117 32.5	CR	51 01 19	1541	138	750	1.84	100.0	287	249

TABLE 1. (cont.)

## CalCOFI Cruise 5101

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
93.0	40.0	32 29.9	118 11.7	CR	51 01 19	2126	142	709	2.01	50.0	167	5367
93.0	50.0	32 09.2	118 57.1	CR	51 01 20	0351	139	752	1.84	100.0	1	19
93.0	60.0	31 49.9	119 40.5	CR	51 01 20	1021	149	714	2.09	100.0	1	9
93.0	70.0	31 32.8	120 15.0	CR	51 01 20	1521	133	834	1.59	100.0	2	6
93.0	80.0	31 12.1	120 55.1	CR	51 01 20	2141	142	724	1.97	100.0	25	105
93.0	90.0	30 49.9	121 35.1	CR	51 01 21	0311	140	744	1.88	100.0	16	19
97.0	32.0	32 11.0	117 11.2	CR	51 01 22	1906	137	775	1.77	100.0	264	198
97.0	40.0	31 56.0	117 50.0	CR	51 01 22	1416	140	765	1.83	100.0	72	2
97.0	50.0	31 31.0	118 21.2	CR	51 01 22	0901	141	753	1.87	100.0	6	19
97.0	60.0	31 12.0	119 04.4	CR	51 01 22	0321	142	742	1.91	100.0	3	24
97.0	70.0	30 53.7	119 47.8	CR	51 01 21	2151	145	771	1.88	100.0	8	76
97.0	80.0	30 34.0	120 34.5	CR	51 01 21	1531	139	793	1.76	100.0	3	13
97.0	90.0	30 11.8	121 16.9	CR	51 01 21	0846	139	751	1.85	100.0	1	45
100.0	30.0	31 40.3	116 46.5	CR	51 01 13	1011	133	837	1.57	100.0	125	188
100.0	40.0	31 21.6	117 28.9	CR	51 01 13	1607	139	719	1.93	100.0	7	12
100.0	50.0	31 02.5	118 12.8	CR	51 01 13	2206	139	750	1.86	100.0	5	12
100.0	60.0	30 43.5	118 56.2	CR	51 01 14	0431	138	744	1.86	100.0	31	7
100.0	70.0	30 23.9	119 40.0	CR	51 01 14	1101	139	725	1.91	100.0	14	70
100.0	80.0	29 59.2	120 09.0	CR	51 01 14	1547	135	708	1.90	100.0	2	10
100.0	90.0	29 40.7	120 47.2	CR	51 01 14	2136	136	749	1.82	100.0	87	36
100.0	100.0	29 20.4	121 27.0	CR	51 01 15	0311	138	735	1.88	100.0	25	10
100.0	110.0	29 00.5	122 06.1	CR	51 01 15	0841	142	747	1.90	100.0	7	14
100.0	120.0	28 40.5	122 46.1	CR	51 01 15	1612	139	732	1.90	100.0	20	13
103.0	40.0	30 44.6	117 07.5	CR	51 01 11	2056	142	686	2.07	100.0	4	2
103.0	50.0	30 32.2	117 40.2	CR	51 01 11	1526	136	782	1.74	100.0	17	77
103.0	60.0	30 04.0	118 19.6	CR	51 01 11	0931	139	761	1.82	100.0	12	2
103.0	70.0	29 45.1	119 03.2	CR	51 01 11	0341	138	814	1.70	100.0	20	1
103.0	80.0	29 26.8	119 45.5	CR	51 01 10	2131	139	790	1.76	100.0	17	84
105.0	35.0	30 37.0	116 35.0	CR	51 01 09	1016	132	796	1.66	100.0	2	2
107.0	40.0	30 10.5	116 43.5	CR	51 01 09	1512	140	751	1.87	100.0	1	2
107.0	50.0	29 50.8	117 22.0	CR	51 01 09	2106	146	729	2.00	100.0	14	0
107.0	60.0	29 31.5	118 01.0	CR	51 01 10	0321	136	816	1.67	100.0	28	3
107.0	70.0	29 09.7	118 43.3	CR	51 01 10	0821	136	783	1.73	100.0	10	205
107.0	80.0	28 50.0	119 22.5	CR	51 01 10	1516	139	784	1.77	100.0	1	33
110.0	35.0	29 47.5	116 02.0	HO	51 01 12	1040	134	793	1.61	100.0	1	19
110.0	40.0	29 38.6	116 21.0	HO	51 01 14	1806	135	812	1.86	100.0	4	17
110.0	50.0	29 18.9	117 04.2	HO	51 01 14	1806	135	814	1.66	100.0	11	3
110.0	60.0	28 56.0	117 39.0	HO	51 01 15	0042	130	818	1.59	100.0	8	8
110.0	70.0	28 41.0	118 20.2	HO	51 01 15	0821	143	682	2.08	100.0	27	15
110.0	80.0	28 17.5	118 56.4	HO	51 01 15	2006	143	688	2.07	100.0	3	23
110.0	90.0	27 56.7	119 37.9	HO	51 01 16	2006	112	934	1.20	100.0	30	16
110.0	100.0	27 38.3	120 22.1	HO	51 01 16	0150	142	787	1.80	100.0	11	16
110.0	110.0	27 19.0	121 05.8	HO	51 01 16	0814	126	851	1.49	100.0	8	98

TABLE 1. (cont.)

## CalCOFI Cruise 5101

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
113.0	35.0	29 12.0	115 39.0	HO	51 01 12	0125	134	913	1.47	100.0	45	399
113.0	40.0	29 02.0	115 58.5	HO	51 01 11	2113	144	816	1.77	100.0	4	0
113.0	50.0	28 42.0	116 37.5	HO	51 01 11	1441	134	904	1.49	100.0	9	1
113.0	60.0	28 22.0	117 16.5	HO	51 01 11	0826	150	768	1.95	100.0	9	23
113.0	70.0	28 02.0	117 55.5	HO	51 01 11	0134	129	823	1.56	100.0	33	13
117.0	35.0	28 38.9	115 17.0	HO	51 01 09	1940	122	999	1.17	100.0	127	1833
117.0	40.0	28 32.5	115 38.5	HO	51 01 10	0009	116	999	1.07	100.0	189	1022
117.0	50.0	28 15.0	116 21.2	HO	51 01 10	0716	147	747	1.97	100.0	21	9
117.0	60.0	27 48.0	116 54.5	HO	51 01 10	1329	124	999	1.16	100.0	8	1
117.0	70.0	27 28.0	117 37.8	HO	51 01 10	1917	137	840	1.63	100.0	15	16
120.0	35.0	28 03.1	114 53.8	HO	51 01 19	0133	63	341	1.85	100.0	371	364
120.0	45.0	27 43.4	115 34.4	HO	51 01 18	1910	152	702	2.16	100.0	29	38
120.0	50.0	27 35.0	115 57.3	HO	51 01 18	1425	133	826	1.61	100.0	0	3
120.0	60.0	27 19.0	116 38.3	HO	51 01 18	0741	136	782	1.74	100.0	1	0
120.0	70.0	26 58.9	117 11.3	HO	51 01 18	0141	152	681	2.24	100.0	1	6
120.0	80.0	26 39.0	117 45.0	HO	51 01 17	1956	147	741	1.99	100.0	39	46
120.0	90.0	26 19.1	118 20.0	HO	51 01 17	1330	137	783	1.75	100.0	19	0
120.0	100.0	25 56.5	118 54.7	HO	51 01 17	0835	141	751	1.88	100.0	85	70
120.0	110.0	25 38.0	119 34.8	HO	51 01 17	0220	149	716	2.08	100.0	122	59
123.0	40.0	27 16.3	114 54.9	HO	51 01 19	0804	134	773	1.73	100.0	72	1725
123.0	50.0	26 55.3	115 34.0	HO	51 01 19	1432	124	847	1.47	100.0	21	67
123.0	60.0	26 36.7	116 09.6	HO	51 01 19	1930	120	812	1.48	100.0	6	13
127.0	40.0	26 43.7	114 28.8	HO	51 01 20	1430	133	805	1.66	100.0	26	472
127.0	50.0	26 14.0	115 09.0	HO	51 01 20	0801	127	768	1.65	100.0	13	102
127.0	60.0	26 03.8	115 47.0	HO	51 01 20	0123	148	679	2.18	100.0	43	28
130.0	35.0	26 18.8	113 48.5	HO	51 01 20	2041	134	740	1.82	100.0	96	3718
130.0	40.0	26 09.2	114 08.0	HO	51 01 21	0024	140	795	1.87	100.0	27	107
130.0	50.0	25 49.5	114 49.7	HO	51 01 21	0622	138	780	1.77	100.0	18	60
130.0	60.0	25 30.0	115 28.3	HO	51 01 21	1214	127	863	1.47	100.0	5	14
130.0	70.0	25 08.0	116 09.0	HO	51 01 21	1810	130	838	1.55	100.0	40	34
130.0	80.0	24 47.5	116 39.9	HO	51 01 21	2326	147	700	2.09	100.0	6	7
133.0	30.0	25 53.2	113 08.2	HO	51 01 23	0421	141	783	1.80	100.0	96	285
133.0	40.0	25 36.2	114 42.8	HO	51 01 22	2101	134	813	1.65	100.0	86	510
133.0	50.0	25 17.5	114 15.4	HO	51 01 22	1612	124	873	1.42	100.0	76	43
133.0	60.0	24 55.2	115 02.0	HO	51 01 22	1020	129	824	1.56	100.0	43	11
137.0	35.0	25 06.5	113 06.8	HO	51 01 23	0936	137	750	1.83	100.0	30	79
137.0	40.0	24 55.5	113 33.4	HO	51 01 23	1455	132	814	1.63	100.0	20	229
137.0	50.0	24 39.0	114 06.8	HO	51 01 23	1955	134	786	1.71	100.0	51	97
137.0	60.0	24 19.4	114 46.5	HO	51 01 24	0206	146	706	2.07	100.0	31	90



TABLE 1. (cont.)

CalCOFI Cruise 5102												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
80.0	55.0	34 19.0	120 48.0	BD	51 02 25	0055	143	797	1.80	25.0	174	104
80.0	60.0	34 09.0	121 09.0	BD	51 02 24	0700	140	749	1.87	100.0	14	67
80.0	70.0	33 49.0	121 51.0	BD	51 02 24	0154	136	875	1.55	100.0	104	46
80.0	80.0	33 29.0	122 32.0	BD	51 02 23	1426	138	784	1.76	100.0	307	1137
80.0	90.0	33 09.0	123 13.0	BD	51 02 23	0726	140	777	1.80	100.0	39	56
80.0	100.0	32 49.0	123 54.0	BD	51 02 23	0016	139	757	1.83	50.0	114	407
80.0	110.0	32 29.0	124 34.5	BD	51 02 22	1639	141	739	1.91	100.0	50	833
80.0	120.0	32 09.0	125 15.5	BD	51 02 22	0816	132	786	1.68	100.0	8	47
80.0	130.0	31 49.0	125 56.0	BD	51 02 22	0005	139	757	1.83	100.0	0	4
83.0	55.0	33 44.0	120 24.5	BD	51 02 24	1746	136	758	1.79	50.0	25	32
83.0	60.0	33 34.0	120 45.0	BD	51 02 24	1305	138	843	1.64	50.0	32	43
87.0	35.0	33 50.0	118 37.5	BD	51 02 18	1116	127	725	1.76	100.0	117	2158
87.0	40.0	33 40.0	118 58.5	BD	51 02 18	1511	142	729	1.94	50.0	168	4125
90.0	30.0	33 24.5	117 55.0	BD	51 02 18	0445	137	773	1.77	100.0	197	1373
90.0	37.0	33 11.0	118 23.5	BD	51 02 18	2050	137	747	1.83	50.0	97	4237
90.0	45.0	32 54.5	118 56.0	BD	51 02 19	0222	130	750	1.74	100.0	757	1539
90.0	53.0	32 38.5	119 29.0	BD	51 02 19	0745	140	816	1.67	100.0	52	1350
90.0	60.0	32 25.0	119 57.5	BD	51 02 19	1246	140	777	1.80	100.0	14	36
90.0	70.0	32 04.5	120 39.0	BD	51 02 19	1944	144	840	1.72	50.0	47	43
90.0	80.0	31 45.0	121 19.0	BD	51 02 20	0242	132	788	1.68	100.0	8	245
90.0	90.0	31 25.0	121 59.0	BD	51 02 20	0846	139	750	1.86	100.0	2	26
90.0	100.0	31 04.5	122 40.0	BD	51 02 20	1456	136	777	1.75	100.0	1	8
90.0	110.0	30 44.5	123 20.0	BD	51 02 20	2036	140	810	1.72	100.0	6	5
90.0	120.0	30 24.5	124 00.5	BD	51 02 21	0322	141	743	1.90	100.0	16	13
93.0	30.0	32 50.0	117 31.5	BD	51 02 17	2129	144	792	1.81	100.0	198	1442
93.0	40.0	32 30.0	118 12.5	BD	51 02 17	0117	132	756	1.75	100.0	289	42
93.0	50.0	32 10.0	118 53.5	BD	51 02 16	1835	138	809	1.71	100.0	6	25
93.0	60.0	31 50.0	119 34.0	BD	51 02 16	1232	136	769	1.77	100.0	72	101
93.0	70.0	31 29.0	120 14.0	BD	51 02 16	0525	132	766	1.72	100.0	57	692
93.0	80.0	31 10.0	120 54.5	BD	51 02 15	2311	139	733	1.90	100.0	14	440
93.0	90.0	30 50.0	121 35.0	BD	51 02 15	1635	155	781	1.98	100.0	8	52
97.0	32.0	32 11.5	117 17.0	CR	51 02 06	1200	148	859	1.72	100.0	65	2130
97.0	40.0	31 55.5	117 50.0	BD	51 02 14	0306	140	862	1.63	100.0	1122	85
97.0	50.0	31 35.5	118 30.0	BD	51 02 14	0952	135	778	1.74	100.0	191	4930
97.0	60.0	31 15.5	119 10.5	BD	51 02 14	1549	140	785	1.78	100.0	24	1719
97.0	70.0	30 55.0	119 50.5	BD	51 02 14	2151	132	859	1.54	100.0	7	88
97.0	80.0	30 35.5	120 31.0	BD	51 02 15	0350	139	881	1.58	100.0	10	75
97.0	90.0	30 15.0	121 11.0	BD	51 02 15	1015	140	740	1.89	100.0	5	55
100.0	30.0	31 40.5	116 46.5	CR	51 02 06	1737	138	727	1.90	100.0	56	328
100.0	40.0	31 21.0	117 27.0	BD	51 02 11	2211	143	742	1.93	100.0	34	136
100.0	50.0	31 01.0	118 07.0	BD	51 02 11	1550	143	736	1.95	100.0	4	58
100.0	60.0	30 41.0	118 47.5	BD	51 02 11	0950	141	733	1.93	100.0	573	409
100.0	70.0	30 20.5	119 27.0	BD	51 02 11	0340	143	808	1.77	100.0	10	10
100.0	80.0	30 01.0	120 07.0	BD	51 02 10	2126	139	747	1.86	100.0	22	132

TABLE 1. (cont.)

## CalCOFI Cruise 5102

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
100.0	90.0	29 40.5	120 47.0	BD	51 02 10	1450	134	846	1.59	100.0	14	81
105.0	35.0	30 39.0	116 33.0	CR	51 02 07	0127	127	780	1.62	100.0	20	18
105.0	40.0	30 28.5	116 54.0	BD	51 02 08	2340	138	778	1.78	100.0	45	92
105.0	50.0	30 08.5	117 34.5	BD	51 02 09	0611	132	821	1.61	100.0	19	144
105.0	60.0	29 48.5	118 14.5	BD	51 02 09	1144	137	820	1.68	100.0	36	98
105.0	70.0	29 29.0	118 54.0	BD	51 02 09	1750	139	713	1.96	100.0	17	34
105.0	80.0	29 09.0	119 34.0	BD	51 02 10	0000	135	802	1.68	100.0	452	616
105.0	90.0	28 49.5	120 14.0	BD	51 02 10	0632	133	766	1.74	100.0	29	76
110.0	35.0	29 47.0	116 02.0	CR	51 02 09	2001	145	724	2.00	100.0	13	103
110.0	40.0	29 36.0	116 23.0	CR	51 02 09	2336	143	724	1.97	100.0	31	251
110.0	50.0	29 15.0	117 04.0	CR	51 02 10	0544	137	805	1.71	100.0	14	1
110.0	60.0	28 54.0	117 46.0	CR	51 02 10	1117	138	803	1.72	100.0	5	30
110.0	70.0	28 37.0	118 18.0	CR	51 02 10	1757	146	724	2.01	100.0	1	2
110.0	80.0	28 15.0	118 57.0	CR	51 02 10	2316	142	760	1.87	100.0	16	84
110.0	90.0	27 53.0	119 35.0	CR	51 02 11	0506	142	789	1.80	100.0	7	352
110.0	100.0	27 31.0	120 14.0	CR	51 02 11	1146	133	774	1.72	100.0	9	342
113.0	35.0	29 11.0	115 38.0	CR	51 02 09	1427	126	818	1.54	100.0	11	333
113.0	40.0	29 01.0	115 58.0	CR	51 02 09	1026	132	761	1.74	100.0	1	4
113.0	50.0	28 41.0	116 37.0	CR	51 02 09	0436	142	757	1.87	100.0	9	5
113.0	60.0	28 22.0	117 16.5	CR	51 02 08	1102	137	763	1.79	100.0	10	10
113.0	70.0	28 02.0	117 55.5	CR	51 02 08	1727	133	705	1.89	100.0	4	12
117.0	35.0	28 41.0	115 14.0	CR	51 02 07	1651	137	728	1.88	100.0	312	1508
117.0	40.0	28 28.0	115 38.0	CR	51 02 07	1956	141	749	1.88	100.0	198	1345
117.0	50.0	28 08.0	116 17.0	CR	51 02 08	0106	138	694	1.99	100.0	31	174
117.0	60.0	27 47.0	116 58.0	CR	51 02 08	0716	137	716	1.91	100.0	5	3
117.0	70.0	27 31.0	117 29.0	CR	51 02 08	1146	117	882	1.32	100.0	0	7
120.0	35.0	28 03.0	114 54.0	CR	51 02 13	1927	72	413	1.75	100.0	452	1183
120.0	45.0	27 43.0	115 33.0	CR	51 02 13	1342	139	710	1.95	50.0	14	8064
120.0	50.0	27 32.0	115 51.0	CR	51 02 13	0936	142	755	1.88	100.0	22	60
120.0	60.0	27 13.0	116 28.0	CR	51 02 13	0326	154	744	2.07	100.0	54	8
120.0	70.0	26 51.0	117 07.0	CR	51 02 12	2136	143	694	2.05	100.0	3	2
120.0	80.0	26 28.0	117 50.0	CR	51 02 12	1526	136	828	1.64	100.0	12	61
120.0	90.0	26 13.0	118 28.0	CR	51 02 12	0941	144	736	1.95	100.0	3	110
120.0	100.0	25 53.0	119 06.0	CR	51 02 12	0127	169	779	2.17	100.0	20	43
123.0	40.0	27 18.0	114 51.5	CR	51 02 17	2146	140	753	1.86	100.0	659	1270
123.0	50.0	26 58.0	115 31.0	CR	51 02 18	0336	139	784	1.77	100.0	234	1469
123.0	60.0	26 37.0	116 12.0	CR	51 02 18	0926	143	785	1.82	100.0	24	22
127.0	40.0	26 43.5	114 29.5	CR	51 02 19	0326	137	819	1.67	100.0	86	50
127.0	50.0	26 23.5	115 08.0	CR	51 02 18	2126	141	789	1.79	100.0	29	100
127.0	60.0	26 03.5	115 46.5	CR	51 02 18	1526	136	808	1.69	100.0	11	514
130.0	35.0	26 20.0	113 50.0	CR	51 02 19	2326	143	782	1.82	100.0	47	129
130.0	40.0	26 10.0	114 10.0	CR	51 02 20	0316	139	766	1.81	100.0	192	134
130.0	50.0	25 50.0	114 51.0	CR	51 02 20	1036	138	779	1.78	100.0	6	98
130.0	60.0	25 31.0	115 25.0	CR	51 02 20	1617	134	773	1.73	100.0	9	549

TABLE 1. (cont.)

CalCOFI Cruise 5102												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
130.0	70.0	25 10.0	116 03.0	CR	51 02 20	2036	137	826	1.66	100.0	130	56
130.0	80.0	24 48.5	116 40.0	CR	51 02 21	0156	141	817	1.73	100.0	17	340
133.0	30.0	25 54.5	113 07.5	CR	51 02 22	0906	116	702	1.66	100.0	252	919
133.0	40.0	25 33.0	113 44.0	CR	51 02 22	0326	136	743	1.83	100.0	192	216
133.0	50.0	25 13.0	114 21.0	CR	51 02 21	2036	139	765	1.81	100.0	63	431
133.0	60.0	24 54.5	115 01.5	CR	51 02 21	1445	137	861	1.59	100.0	29	242
137.0	35.0	25 10.0	113 04.5	CR	51 02 22	1426	135	807	1.67	100.0	158	338
137.0	40.0	25 00.0	113 23.5	CR	51 02 22	1816	133	819	1.63	100.0	1144	236
137.0	50.0	24 40.0	114 01.5	CR	51 02 22	2346	135	794	1.70	100.0	39	351
137.0	60.0	24 20.0	114 39.5	CR	51 02 23	0526	136	780	1.75	100.0	141	72



TABLE 1. (cont.)

## CalCOFI Cruise 5103

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
80.0	55.0	34 19.0	120 48.0	BD	51 03 23	0652	136	624	2.18	100.0	175	245
80.0	60.0	34 09.0	121 09.0	BD	51 03 23	0236	145	635	2.28	50.0	303	9379
80.0	70.0	33 49.0	121 51.0	BD	51 03 22	1836	142	692	2.05	100.0	836	1768
80.0	80.0	33 39.0	122 24.0	BD	51 03 22	1227	133	816	1.64	100.0	337	763
80.0	90.0	33 15.0	123 11.0	BD	51 03 22	0548	115	969	1.19	50.0	322	231
80.0	100.0	32 49.0	123 54.0	BD	51 03 21	2145	129	919	1.40	100.0	152	134
80.0	110.0	32 29.0	124 34.5	BD	51 03 21	1522	141	769	1.83	100.0	488	210
80.0	120.0	32 09.0	125 15.5	BD	51 03 21	0907	141	716	1.97	100.0	14	456
80.0	130.0	31 49.0	125 56.0	BD	51 03 21	0222	134	818	1.63	100.0	137	170
85.0	40.0	33 57.0	119 10.5	BD	51 03 17	1317	140	700	1.99	100.0	64	769
85.0	50.0	33 37.0	119 52.0	BD	51 03 17	0751	129	772	1.67	100.0	223	113
85.0	70.0	32 57.0	121 14.5	BD	51 03 16	1256	142	709	2.01	100.0	37	169
85.0	80.0	32 37.0	121 55.5	BD	51 03 16	0404	141	562	2.51	50.0	61	1117
85.0	90.0	32 17.0	122 37.0	BD	51 03 15	2103	132	556	2.38	100.0	121	402
90.0	30.0	33 24.5	117 55.0	BD	51 03 17	2135	141	845	1.67	100.0	379	133
90.0	37.0	33 11.0	118 23.5	BD	51 03 18	0241	138	813	1.59	100.0	350	246
90.0	45.0	32 54.5	118 56.0	BD	51 03 18	0826	164	614	2.66	100.0	34	526
90.0	53.0	32 38.5	119 29.0	BD	51 03 18	1402	140	789	1.78	100.0	33	2924
90.0	60.0	32 25.0	119 57.5	BD	51 03 18	1819	136	750	1.60	100.0	43	1360
90.0	70.0	32 04.5	120 39.0	BD	51 03 19	0206	142	470	3.02	100.0	91	1310
90.0	80.0	31 45.0	121 19.0	BD	51 03 19	0906	136	666	2.05	100.0	25	1324
90.0	90.0	31 25.0	121 59.0	BD	51 03 19	1502	139	672	2.07	100.0	207	1391
90.0	100.0	31 04.5	122 40.0	BD	51 03 19	2040	143	781	1.84	100.0	219	625
90.0	110.0	30 44.5	123 20.0	BD	51 03 20	0251	140	850	1.65	100.0	109	172
90.0	120.0	30 24.5	124 00.5	BD	51 03 20	0916	144	760	1.90	100.0	10	463
93.0	30.0	32 50.0	117 31.5	BD	51 03 13	1756	140	876	1.60	100.0	171	98
93.0	40.0	32 30.0	118 12.5	BD	51 03 14	0026	142	788	1.80	100.0	248	244
93.0	50.0	32 10.0	118 53.5	BD	51 03 14	0621	136	762	1.78	100.0	60	648
93.0	60.0	31 50.0	119 34.0	BD	51 03 14	1232	136	689	1.97	100.0	36	3424
93.0	70.0	31 29.0	120 14.0	BD	51 03 14	1812	141	698	2.01	100.0	32	585
93.0	80.0	31 10.0	120 54.5	BD	51 03 15	0106	140	599	2.33	50.0	70	1067
93.0	90.0	30 50.0	121 35.0	BD	51 03 15	0646	138	722	1.91	100.0	39	0
97.0	32.0	32 11.5	117 17.0	BD	51 03 12	1722	145	804	1.80	100.0	18	813
97.0	40.0	31 55.5	117 50.0	BD	51 03 12	1206	141	784	1.80	100.0	1165	236
97.0	50.0	31 35.5	118 30.0	BD	51 03 12	0456	140	867	1.61	100.0	101	217
97.0	60.0	31 15.5	119 10.5	BD	51 03 11	2236	133	798	1.66	100.0	121	1489
97.0	70.0	30 55.0	119 50.5	BD	51 03 11	1641	137	515	2.65	100.0	175	320
97.0	80.0	30 35.5	120 31.0	BD	51 03 11	1111	129	523	2.46	50.0	152	4987
97.0	90.0	30 15.0	121 11.0	BD	51 03 11	0041	137	834	1.65	100.0	18	1780
100.0	30.0	31 40.5	116 46.5	BD	51 03 08	1315	139	857	1.62	100.0	153	202
100.0	40.0	31 21.0	117 27.0	BD	51 03 08	1950	137	862	1.59	100.0	56	702
100.0	50.0	31 01.0	118 07.0	BD	51 03 09	0610	136	860	1.58	100.0	45	157
100.0	60.0	30 41.0	118 47.5	BD	51 03 09	1320	142	858	1.65	100.0	175	837
100.0	70.0	30 20.5	119 27.0	BD	51 03 09	2210	136	854	1.60	11.4	689	78

TABLE 1. (cont.)

CalCOFI Cruise 5103												
Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
100.0	80.0	30 01.0	120 07.0	BD	51 03 10	0256	135	784	1.72	100.0	494	689
100.0	90.0	29 40.5	120 47.0	BD	51 03 10	0931	139	885	1.57	100.0	28	147
100.0	100.0	29 20.5	121 27.0	BD	51 03 10	1530	141	844	1.67	100.0	11	116
103.0	35.0	30 54.2	116 45.1	CR	51 03 08	0221	145	596	2.43	100.0	49	463
103.0	40.0	30 44.0	117 05.5	CR	51 03 08	0621	147	525	2.79	100.0	136	38
103.0	50.0	30 27.8	117 45.5	CR	51 03 08	1206	143	511	2.81	100.0	992	305
103.0	60.0	30 07.1	118 23.0	CR	51 03 08	1721	161	478	3.36	100.0	488	236
103.0	70.0	29 46.0	119 01.0	CR	51 03 09	0016	141	509	2.77	50.0	88	204
103.0	80.0	29 24.1	119 28.2	CR	51 03 09	0636	148	467	3.17	37.0	1678	294
107.0	35.0	30 20.0	116 21.8	CR	51 03 10	1541	139	523	2.66	100.0	68	46
107.0	40.0	30 10.0	116 42.2	CR	51 03 10	1046	143	578	2.47	100.0	711	1060
107.0	50.0	29 50.3	117 22.4	CR	51 03 10	0456	148	517	2.87	100.0	10	3563
107.0	60.0	29 31.3	118 02.7	CR	51 03 09	2311	141	522	2.70	100.0	9	110
107.0	70.0	29 13.0	118 42.3	CR	51 03 09	1711	137	532	2.57	100.0	34	516
107.0	80.0	28 55.0	119 21.0	CR	51 03 09	1136	138	545	2.52	100.0	366	118
110.0	35.0	29 47.1	116 00.5	CR	51 03 13	0950	137	537	2.56	100.0	6	35
110.0	40.0	29 36.8	116 20.0	CR	51 03 13	1326	136	525	2.60	100.0	21	480
110.0	50.0	29 16.0	116 59.5	CR	51 03 13	1856	130	547	2.38	100.0	149	176
110.0	60.0	28 55.0	117 38.5	CR	51 03 14	0121	136	525	2.59	100.0	12	212
110.0	70.0	28 34.8	118 17.8	CR	51 03 14	0856	133	533	2.49	100.0	17	186
110.0	80.0	28 16.0	118 57.5	CR	51 03 14	1520	137	555	2.47	100.0	13	110
110.0	90.0	27 56.0	119 37.5	CR	51 03 14	2026	133	568	2.33	100.0	17	92
110.0	100.0	27 36.5	120 17.5	CR	51 03 15	0141	128	549	2.33	100.0	9	34
110.0	110.0	27 17.2	120 58.0	CR	51 03 15	0806	134	553	2.43	100.0	4	31
113.0	35.0	28 10.2	115 39.1	CR	51 03 13	0346	135	491	2.74	50.0	76	1089
113.0	50.0	28 40.5	116 38.6	CR	51 03 12	1811	137	555	2.46	100.0	21	667
113.0	60.0	28 21.5	117 18.0	CR	51 03 12	1226	141	537	2.64	50.0	7	180
113.0	70.0	25 02.2	117 57.5	CR	51 03 12	0636	137	534	2.56	100.0	170	534
117.0	35.0	28 38.1	115 15.9	CR	51 03 11	0342	116	466	2.49	100.0	124	2228
117.0	40.0	28 27.3	115 35.1	CR	51 03 11	0656	141	548	2.57	100.0	237	2273
117.0	50.0	28 07.8	116 15.0	CR	51 03 11	1227	135	522	2.60	100.0	58	1716
117.0	60.0	27 47.9	116 55.0	CR	51 03 11	1826	139	525	2.64	100.0	15	105
117.0	70.0	27 28.0	117 34.5	CR	51 03 12	0006	137	522	2.63	100.0	107	1530
120.0	35.0	28 03.0	114 54.0	CR	51 03 18	0144	51	335	1.52	100.0	125	471
120.0	45.0	27 41.3	115 33.0	CR	51 03 17	1941	148	489	3.04	50.0	238	3291
120.0	50.0	27 31.1	115 52.4	CR	51 03 17	1551	141	542	2.60	100.0	94	736
120.0	60.0	27 11.5	116 31.8	CR	51 03 17	0810	140	509	2.75	100.0	73	94
120.0	70.0	26 52.0	117 10.0	CR	51 03 17	0026	141	542	2.60	100.0	85	134
120.0	80.0	26 32.5	117 48.5	CR	51 03 16	1841	139	516	2.70	100.0	55	63
120.0	90.0	26 13.0	118 27.5	CR	51 03 16	1131	140	524	2.68	100.0	26	84
120.0	100.0	25 53.5	119 06.8	CR	51 03 16	0456	136	551	2.48	100.0	42	81
120.0	110.0	25 33.0	119 44.0	CR	51 03 15	2221	136	546	2.50	100.0	27	60
123.0	40.0	27 18.0	114 53.0	CR	51 03 18	0906	136	538	2.53	50.0	58	8081
123.0	50.0	26 58.0	115 30.5	CR	51 03 18	1321	139	514	2.71	100.0	12	56

TABLE 1. (cont.)

## CalCOFI Cruise 5103

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
123.0	60.0	26 38.5	116 09.0	CR	51 03 18	1721	136	523	2.60	100.0	13	122
127.0	40.0	26 45.0	114 29.0	CR	51 03 19	0956	137	563	2.44	100.0	7	60
127.0	50.0	26 24.2	115 07.0	CR	51 03 19	0521	137	524	2.61	100.0	13	261
127.0	60.0	26 03.5	115 44.5	CR	51 03 18	2311	140	541	2.58	100.0	34	22
130.0	35.0	26 14.6	113 48.6	HO	51 03 20	1021	144	608	2.36	100.0	28	423
130.0	40.0	26 09.0	114 07.3	HO	51 03 20	1536	136	695	1.95	100.0	6	71
130.0	50.0	25 46.9	114 47.5	HO	51 03 20	2151	141	673	2.09	100.0	19	96
130.0	60.0	25 25.9	115 27.5	PT	51 03 21	0351	140	710	1.98	100.0	9	220
130.0	70.0	25 10.9	116 05.2	HO	51 03 21	1126	147	663	2.22	100.0	8	151
130.0	80.0	24 49.0	116 46.5	HO	51 03 21	1647	138	709	1.94	100.0	4	450
133.0	30.0	25 58.2	113 00.0	HO	51 03 20	0443	131	422	3.11	100.0	1387	1626
133.0	40.0	25 37.3	113 42.8	HO	51 03 19	2241	146	681	2.15	100.0	28	76
133.0	50.0	25 14.6	114 25.2	HO	51 03 19	1651	134	744	1.80	100.0	3	245
133.0	60.0	24 52.5	115 03.3	HO	51 03 19	1041	133	752	1.77	100.0	35	786
133.0	35.0	25 10.5	113 04.1	HO	51 03 18	1326	148	726	2.04	100.0	962	223
137.0	40.0	24 58.5	113 24.5	HO	51 03 18	1747	132	760	1.74	100.0	178	232
137.0	50.0	24 40.8	114 01.7	HO	51 03 18	2326	148	673	2.20	100.0	306	440
137.0	60.0	24 20.8	114 39.5	HO	51 03 19	0511	138	714	1.93	100.0	54	3260
140.0	35.0	24 33.6	112 42.6	HO	51 03 14	1546	137	741	1.85	100.0	97	268
140.0	40.0	24 26.8	113 08.0	HO	51 03 14	0301	136	655	2.07	100.0	13	124
140.0	50.0	24 12.3	113 32.2	HO	51 03 14	2046	139	735	1.90	100.0	11	151
140.0	60.0	23 49.5	114 13.7	HO	51 03 13	1501	139	721	1.93	100.0	15	785
140.0	70.0	23 29.2	114 53.8	HO	51 03 13	0751	149	684	2.18	100.0	4	1086
140.0	80.0	23 10.0	115 30.5	HO	51 03 13	1328	67	402	1.66	100.0	4	240
143.0	30.0	23 56.3	111 56.2	HO	51 03 16	0921	125	720	1.74	100.0	11	15
143.0	35.0	23 47.5	112 14.3	HO	51 03 16	0521	135	712	1.90	100.0	17	59
143.0	40.0	23 31.0	113 18.0	HO	51 03 15	2321	144	646	2.23	100.0	17	53
147.0	20.0	23 54.0	111 04.8	HO	51 03 15	0443	68	428	1.58	100.0	29	32
147.0	25.0	23 46.3	111 22.2	HO	51 03 15	0734	142	726	1.96	100.0	28	6
147.0	30.0	23 37.0	111 41.0	HO	51 03 15	1351	116	813	1.43	100.0	19	438
147.0	40.0	23 19.1	112 22.7	HO	51 03 15	1701	137	713	1.92	100.0	23	297
150.0	25.0	23 13.5	110 59.0	HO	51 03 10	2336	118	852	1.39	100.0	10	80
150.0	30.0	23 03.5	111 15.5	HO	51 03 11	0340	139	692	2.02	100.0	256	411
150.0	40.0	22 39.2	112 02.0	HO	51 03 11	1031	130	763	1.71	100.0	150	11041
150.0	50.0	22 21.0	112 35.0	HO	51 03 11	1921	136	726	1.88	100.0	3	157
150.0	60.0	22 04.0	113 18.2	HO	51 03 12	0115	136	751	1.81	100.0	72	1808
150.0	70.0	21 37.0	113 50.3	HO	51 03 12	0731	138	717	1.93	100.0	99	158
150.0	80.0	21 21.0	114 26.0	HO	51 03 12	1316	133	731	1.82	100.0	84	105
153.0	20.0	22 47.5	110 22.0	HO	51 03 10	1627	149	715	2.08	100.0	15	71
153.0	30.0	22 33.5	110 59.5	HO	51 03 10	1033	141	702	2.01	100.0	82	1318
153.0	40.0	22 10.4	111 36.0	HO	51 03 10	0401	128	806	1.58	100.0	6	39
153.0	50.0	21 49.0	112 13.0	HO	51 03 09	2141	140	762	1.84	100.0	52	506
157.0	10.0	22 33.0	109 23.0	HO	51 03 08	1226	131	856	1.54	100.0	18	387
											23	169



TABLE 1. (cont.)

CalCOFI Cruise 5103											
Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
157.0 20.0	22 13.0	110 00.0	HO	51 03 08	1746	136	923	1.47	100.0	22	21
157.0 30.0	21 52.8	110 35.0	HO	51 03 08	2256	139	745	1.86	100.0	233	120
157.0 40.0	21 31.5	111 11.0	HO	51 03 09	0615	133	805	1.65	100.0	25	826
157.0 50.0	21 13.8	111 50.0	HO	51 03 09	1236	142	775	1.84	100.0	2	906

TABLE 1. (cont.)

## CalCOFI Cruise 5104

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	37 37.0	123 37.0	BD	51 04 04	0130	139	675	2.06	25.0	10	8
60.0	37 17.0	124 21.0	BD	51 04 04	0846	140	622	2.26	50.0	4	48
60.0	36 57.0	125 04.0	BD	51 04 04	1940	155	711	2.18	50.0	36	102
60.0	36 37.0	125 47.0	BD	51 04 05	0801	138	763	1.81	25.0	5	17
60.0	36 17.0	126 30.0	BD	51 04 05	1558	140	811	1.73	100.0	34	63
60.0	35 57.0	127 12.0	BD	51 04 05	2231	138	746	1.86	100.0	31	8
61.0	37 37.0	123 07.5	BD	51 04 02	1815	134	920	1.45	100.0	61	82
63.0	37 09.0	122 58.0	BD	51 04 02	2325	132	677	1.95	25.0	71	119
63.0	36 49.0	123 41.0	BD	51 04 03	1810	143	772	1.85	25.0	11	55
67.0	36 39.0	122 26.0	BD	51 04 03	0542	133	671	1.98	50.0	5	36
67.0	36 19.0	123 09.0	BD	51 04 03	1159	133	778	1.71	25.0	60	141
70.0	36 03.0	122 02.0	BD	51 04 08	1229	143	607	2.34	50.0	65	86
70.0	35 53.0	122 23.0	BD	51 04 08	0729	145	648	2.24	50.0	22	37
70.0	35 33.0	123 06.0	BD	51 04 07	2315	131	718	1.82	50.0	23	218
70.0	35 13.0	123 48.0	BD	51 04 07	1642	141	723	1.95	50.0	23	55
70.0	34 53.0	124 30.0	BD	51 04 07	1024	137	780	1.76	50.0	372	864
70.0	34 33.0	125 12.0	BD	51 04 07	0125	137	752	1.82	50.0	61	81
73.0	35 35.5	125 54.0	BD	51 04 06	1620	142	773	1.84	100.0	8	545
73.0	35 16.0	121 20.0	BD	51 04 08	1905	142	610	2.33	50.0	38	85
77.0	34 54.5	122 02.5	BD	51 04 09	0035	140	780	1.79	25.0	145	41
77.0	34 34.0	121 13.0	BD	51 04 09	1400	139	748	1.86	50.0	147	550
80.0	34 19.0	121 55.0	BD	51 04 09	0804	135	774	1.74	50.0	40	95
80.0	34 09.0	120 48.0	BD	51 04 09	1940	146	809	1.80	100.0	176	411
80.0	33 49.0	121 09.0	BD	51 04 09	2331	138	818	1.69	100.0	79	33
80.0	33 29.0	121 51.0	BD	51 04 10	0734	142	838	1.69	100.0	83	50
80.0	33 09.0	122 32.0	BD	51 04 10	1446	139	846	1.64	100.0	147	16
80.0	32 49.0	123 13.0	BD	51 04 10	2100	144	738	1.96	100.0	15	16
80.0	32 29.0	123 54.0	BD	51 04 11	0305	137	841	1.63	100.0	109	108
80.0	32 09.0	124 34.5	BD	51 04 11	0856	144	762	1.89	100.0	57	97
80.0	31 49.0	125 15.5	BD	51 04 11	1500	140	796	1.76	100.0	118	206
83.0	33 44.0	120 45.0	BD	51 04 11	2135	142	785	1.81	100.0	771	131
83.0	33 34.0	120 45.0	BD	51 04 13	0406	147	932	1.57	50.0	389	120
83.0	33 14.5	121 26.0	BD	51 04 13	1115	138	886	1.48	50.0	386	204
83.0	32 54.5	122 07.5	BD	51 04 13	0256	144	758	1.71	100.0	208	43
83.0	32 34.5	122 48.0	BD	51 04 12	2015	138	871	1.59	100.0	224	20
87.0	33 50.0	118 37.5	BD	51 04 14	1544	137	827	1.66	50.0	280	62
87.0	33 40.0	118 58.5	BD	51 04 14	1909	137	648	2.11	100.0	50	6
87.0	33 20.0	119 39.5	BD	51 04 15	0136	155	584	2.65	100.0	265	84
87.0	33 00.0	120 21.5	BD	51 04 15	0625	145	764	1.90	100.0	582	21
87.0	32 39.5	121 02.0	BD	51 04 15	1258	137	780	1.76	100.0	1567	293
87.0	32 19.5	121 43.0	BD	51 04 15	1834	142	795	1.78	100.0	674	271
87.0	31 59.0	122 24.0	BD	51 04 16	0154	143	723	1.98	12.5	806	1237
90.0	33 24.5	117 55.0	CR	51 04 17	1348	123	846	1.46	100.0	139	87
										235	166

TABLE 1. (cont.)

CalCOFI Cruise 5104												
Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
90.0	37.0	33 11.0	118 23.5	CR	51 04 17	0949	115	950	1.21	100.0	144	1092
90.0	45.0	32 53.5	118 54.5	CR	51 04 17	0454	111	888	1.25	50.0	957	25
90.0	53.0	32 37.8	119 27.5	CR	51 04 16	2300	112	907	1.23	50.0	325	406
90.0	60.0	32 24.0	119 56.2	CR	51 04 16	1800	120	868	1.39	100.0	126	101
90.0	70.0	32 04.0	120 37.5	CR	51 04 16	1305	123	899	1.37	100.0	418	860
90.0	80.0	31 44.0	121 18.0	CR	51 04 16	0727	119	902	1.16	100.0	194	535
90.0	90.0	31 24.0	121 59.0	CR	51 04 16	0200	111	838	1.32	50.0	113	87
90.0	100.0	31 04.5	122 40.0	CR	51 04 15	2047	115	838	1.37	100.0	81	710
90.0	110.0	30 45.7	123 25.5	CR	51 04 15	1451	125	840	1.49	100.0	108	318
90.0	120.0	30 24.8	124 04.7	CR	51 04 15	0800	130	810	1.60	100.0	104	1396
93.0	30.0	32 50.0	117 31.5	CR	51 04 08	2324	125	818	1.53	100.0	193	303
93.0	40.0	32 30.0	118 12.5	CR	51 04 09	0519	122	866	1.41	100.0	508	337
93.0	50.0	32 10.0	118 53.0	CR	51 04 09	1150	135	736	1.83	100.0	339	1181
93.0	60.0	31 50.2	119 33.8	CR	51 04 09	1726	132	745	1.77	100.0	233	1024
93.0	70.0	31 30.2	120 15.0	CR	51 04 10	0048	134	744	1.80	100.0	471	582
93.0	80.0	31 10.8	120 56.0	CR	51 04 10	0535	128	812	1.58	100.0	425	1031
93.0	90.0	30 51.0	121 36.2	CR	51 04 10	1018	136	750	1.81	100.0	138	911
97.0	32.0	32 08.7	117 17.0	CR	51 04 12	0310	125	881	1.42	100.0	294	511
97.0	40.0	31 53.0	117 49.0	CR	51 04 11	2134	137	726	1.89	100.0	329	280
97.0	50.0	31 33.8	118 30.0	CR	51 04 11	1521	129	810	1.60	100.0	109	834
97.0	60.0	31 14.0	119 10.5	CR	51 04 11	0918	137	761	1.80	100.0	459	1905
97.0	70.0	30 54.5	119 50.2	CR	51 04 11	0354	132	778	1.69	100.0	174	325
97.0	80.0	30 35.0	120 31.0	CR	51 04 10	2211	127	798	1.60	100.0	486	243
97.0	90.0	30 15.0	121 11.0	CR	51 04 12	1626	133	755	1.76	100.0	102	293
100.0	30.0	31 40.5	116 46.5	CR	51 04 12	0912	127	750	1.70	100.0	191	75
100.0	40.0	31 21.0	117 27.0	CR	51 04 12	1411	137	787	1.74	50.0	610	134
100.0	50.0	31 01.0	118 08.0	CR	51 04 12	2034	133	713	1.86	50.0	481	721
100.0	60.0	30 40.6	118 48.2	CR	51 04 13	0239	117	736	1.60	100.0	129	285
100.0	70.0	30 20.0	119 28.5	CR	51 04 13	0957	120	788	1.52	100.0	248	460
100.0	80.0	30 00.5	120 08.5	CR	51 04 13	1659	120	803	1.49	100.0	144	54
100.0	90.0	29 40.0	120 48.5	CR	51 04 13	2320	123	796	1.54	100.0	288	329
100.0	100.0	29 20.0	121 28.5	CR	51 04 14	0451	126	782	1.61	100.0	66	306
100.0	110.0	29 00.0	122 09.0	CR	51 04 14	1040	120	800	1.50	100.0	114	402
100.0	120.0	28 40.0	122 47.0	CR	51 04 14	1647	127	848	1.50	100.0	11	124
103.0	35.0	30 55.0	116 43.5	CR	51 04 08	0857	138	668	2.06	100.0	114	888
103.0	40.0	30 44.8	117 04.6	CR	51 04 08	0456	132	762	1.74	100.0	123	776
103.0	50.0	30 25.8	117 44.6	CR	51 04 07	2244	133	709	1.87	100.0	60	317
103.0	60.0	30 06.0	118 25.5	CR	51 04 07	1621	146	658	2.22	100.0	117	673
103.0	70.0	29 46.8	119 06.0	CR	51 04 07	1057	124	733	1.69	100.0	97	365
103.0	80.0	29 27.8	119 46.2	CR	51 04 07	0512	142	775	1.83	100.0	85	378
107.0	35.0	30 19.0	116 17.6	CR	51 04 05	1511	134	836	1.60	100.0	127	676
107.0	40.0	30 10.5	116 43.5	CR	51 04 05	2008	141	777	1.81	100.0	262	106
107.0	50.0	29 50.5	117 23.5	CR	51 04 06	0243	143	696	2.06	100.0	34	401
107.0	60.0	29 31.0	118 03.0	CR	51 04 06	0935	142	659	2.15	100.0	10	180



TABLE 1. (cont.)

## CalCOFI Cruise 5104

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
107.0	70.0	29 11.0	118 43.0	CR	51 04 06	1541	141	701	2.01	201	290
107.0	80.0	28 51.5	119 22.5	CR	51 04 06	2145	132	805	1.64	855	268
110.0	35.0	29 46.3	116 00.6	HO	51 04 05	2020	141	711	1.98	12	2
110.0	40.0	29 35.0	116 21.6	HO	51 04 06	0024	138	771	1.80	28	84
110.0	50.0	29 12.5	117 05.0	HO	51 04 06	0626	133	760	1.74	17	180
110.0	60.0	28 53.0	117 42.0	HO	51 04 06	1131	127	714	1.78	13	1112
110.0	70.0	28 36.3	118 18.0	HO	51 04 06	1852	138	650	2.11	111	138
110.0	80.0	28 17.0	118 56.3	HO	51 04 07	0025	136	692	1.96	218	335
110.0	90.0	27 56.7	119 35.3	HO	51 04 07	0616	140	778	1.80	134	129
110.0	100.0	27 40.3	120 17.9	HO	51 04 07	1216	133	728	1.82	22	313
110.0	110.0	27 16.3	120 55.0	HO	51 04 07	1821	154	711	2.16	15	87
113.0	35.0	29 18.3	115 29.3	HO	51 04 05	1409	161	661	2.44	41	125
113.0	40.0	29 07.3	115 50.5	HO	51 04 05	1041	134	720	1.86	180	929
113.0	50.0	28 46.5	116 32.8	HO	51 04 05	0439	135	729	1.85	33	1168
113.0	60.0	28 25.0	117 14.8	HO	51 04 04	2306	137	654	2.08	64	285
113.0	70.0	28 02.0	117 55.5	HO	51 04 04	1726	161	675	2.39	61	372
117.0	35.0	28 38.2	115 15.7	HO	51 04 03	1225	142	807	1.76	50	2720
117.0	40.0	28 28.1	115 36.0	HO	51 04 03	1656	132	815	1.62	586	278
117.0	50.0	28 06.8	116 14.6	HO	51 04 03	2301	140	750	1.86	49	34
117.0	60.0	27 46.0	116 49.8	HO	51 04 04	0506	142	651	2.18	142	691
117.0	70.0	27 27.3	117 32.1	HO	51 04 04	1102	146	680	2.15	3	242
120.0	35.0	28 03.5	114 56.4	HO	51 04 10	1338	40	293	2.35	78	260
120.0	45.0	27 43.3	115 33.5	HO	51 04 10	0601	138	651	2.11	92	573
120.0	50.0	27 34.0	115 53.0	HO	51 04 10	0255	134	727	1.84	119	1947
120.0	60.0	27 14.5	116 33.8	HO	51 04 09	1856	140	690	2.03	145	290
120.0	70.0	26 51.3	117 13.8	HO	51 04 09	1221	130	764	1.70	131	317
120.0	80.0	26 33.7	117 50.9	HO	51 04 09	0620	142	722	1.97	56	390
120.0	90.0	26 15.0	118 29.0	HO	51 04 09	0021	136	723	1.88	67	54
120.0	100.0	25 53.2	119 09.0	HO	51 04 08	1721	137	730	1.88	4	114
120.0	110.0	25 32.5	119 51.9	HO	51 04 08	0831	127	793	1.60	66	155
123.0	40.0	27 17.7	114 52.7	HO	51 04 10	2011	129	747	1.73	193	3619
123.0	50.0	26 58.8	115 31.3	HO	51 04 11	0215	138	721	1.92	285	275
123.0	60.0	26 39.2	116 09.6	HO	51 04 11	0806	122	724	1.69	81	338
127.0	40.0	26 42.9	114 28.2	HO	51 04 12	0230	143	706	2.02	352	2500
127.0	50.0	26 23.3	115 08.0	HO	51 04 11	1946	147	628	2.33	41	122
127.0	60.0	26 04.0	115 46.7	HO	51 04 11	1326	142	773	1.83	4	52
130.0	35.0	26 20.8	113 44.1	HO	51 04 12	0812	63	443	1.43	675	2043
130.0	40.0	26 09.2	114 01.0	HO	51 04 12	1220	132	758	1.74	24	220
130.0	50.0	25 59.0	114 43.0	HO	51 04 12	1911	136	705	1.92	55	107
130.0	60.0	25 29.2	115 23.1	HO	51 04 13	0135	153	615	2.49	38	363
130.0	70.0	25 00.2	116 05.0	HO	51 04 13	0821	133	775	1.72	33	1587
130.0	80.0	24 39.2	116 44.1	HO	51 04 13	1306	137	742	1.85	70	153
133.0	30.0	25 54.4	113 08.0	HO	51 04 14	1921	133	821	1.62	223	786
133.0	40.0	25 39.8	113 59.0	HO	51 04 14	1306	136	770	1.77	23	313

TABLE 1. (cont.)

CalCOFI Cruise 5104												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
133.0	50.0	25 20.0	114 33.9	HO	51 04 14	0715	145	712	2.04	100.0	44	370
133.0	60.0	24 56.9	115 07.0	HO	51 04 14	0015	142	746	1.90	100.0	6	208
137.0	35.0	25 09.8	113 11.7	HO	51 04 16	1536	140	783	1.78	100.0	91	112
137.0	40.0	25 03.0	113 27.5	HO	51 04 16	2036	136	787	1.73	100.0	60	544
137.0	50.0	24 40.7	114 01.7	HO	51 04 17	0236	137	772	1.78	100.0	45	16
137.0	60.0	24 22.0	114 38.0	HO	51 04 17	0816	141	760	1.86	100.0	18	192

TABLE 1. (cont.)

## CalCOFI Cruise 5105

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	60.0	37 37.0	123 37.0	BD	51 05 02	2312	134	739	1.81	50.0	4	16
60.0	70.0	37 17.0	124 21.0	BD	51 05 03	0756	140	754	1.86	100.0	14	80
60.0	80.0	36 57.0	125 04.0	BD	51 05 03	1646	141	768	1.84	100.0	28	630
60.0	90.0	36 37.0	125 47.0	BD	51 05 04	0157	132	726	1.82	50.0	32	223
60.0	100.0	36 17.0	126 30.0	BD	51 05 04	1126	138	769	1.80	100.0	6	9
60.0	110.0	35 57.0	127 12.0	BD	51 05 04	1916	140	752	1.86	50.0	15	9
61.0	55.0	37 37.0	123 07.5	BD	51 05 01	1447	142	822	1.72	100.0	11	8
63.0	57.0	37 09.0	122 58.0	BD	51 05 01	1956	142	881	1.61	50.0	19	30
67.0	55.0	36 39.0	122 26.0	BD	51 05 02	0216	136	863	1.57	50.0	15	2
67.0	65.0	36 19.0	123 09.0	BD	51 05 02	0847	138	810	1.70	50.0	9	15
70.0	55.0	36 03.0	122 02.0	BD	51 05 07	0404	139	847	1.65	50.0	19	20
70.0	60.0	35 53.0	122 23.0	BD	51 05 06	2142	141	832	1.69	50.0	33	4
70.0	70.0	35 33.0	123 06.0	BD	51 05 06	1517	144	806	1.78	25.0	5	2
70.0	80.0	35 13.0	123 48.0	BD	51 05 06	0822	136	848	1.60	50.0	20	12
70.0	90.0	34 53.0	124 30.0	BD	51 05 06	0052	141	801	1.76	100.0	27	24
70.0	100.0	34 33.0	125 12.0	BD	51 05 05	1837	139	789	1.77	100.0	15	398
70.0	110.0	34 13.0	125 54.0	BD	51 05 05	1217	138	815	1.69	100.0	9	130
73.0	51.0	35 35.5	121 20.0	BD	51 05 07	1111	147	742	1.98	100.0	12	130
73.0	61.0	35 16.0	122 02.5	BD	51 05 07	1906	141	798	1.76	100.0	58	7
77.0	55.0	34 54.5	121 13.0	BD	51 05 08	1036	145	743	1.95	12.5	10	9
77.0	65.0	34 34.0	121 55.0	BD	51 05 08	0242	140	772	1.81	100.0	49	50
80.0	55.0	34 19.0	120 48.0	BD	51 05 08	1857	135	756	1.78	50.0	29	47
83.0	55.0	33 44.0	120 24.5	BD	51 05 14	0802	133	806	1.65	100.0	105	116
83.0	60.0	33 34.0	120 45.0	BD	51 05 14	1341	144	792	1.82	50.0	13	15
83.0	70.0	33 14.5	121 26.0	BD	51 05 15	0406	143	690	2.07	50.0	98	237
87.0	35.0	33 50.0	118 37.5	BD	51 05 12	0627	143	763	1.87	50.0	22	14
87.0	40.0	33 40.0	118 58.5	BD	51 05 12	0156	146	827	1.76	100.0	261	7
87.0	50.0	33 20.0	119 39.5	BD	51 05 11	1618	48	359	1.35	100.0	90	79
87.0	60.0	33 00.0	120 21.5	BD	51 05 11	0207	135	850	1.59	100.0	3	10
87.0	70.0	32 39.5	121 02.0	BD	51 05 10	1852	135	787	1.71	100.0	14	545
87.0	80.0	32 19.5	121 43.0	BD	51 05 10	0916	145	754	1.93	100.0	36	834
87.0	90.0	31 59.0	122 24.0	BD	51 05 10	0136	143	752	1.90	100.0	82	680
90.0	30.0	33 24.5	117 55.0	CR	51 05 15	1004	142	666	2.13	100.0	57	35
90.0	37.0	33 11.0	118 23.5	CR	51 05 15	0657	138	752	1.82	100.0	35	99
90.0	45.0	32 54.5	118 56.0	CR	51 05 14	2320	139	706	1.97	100.0	502	106
90.0	53.0	32 38.5	119 29.0	CR	51 05 14	1703	139	693	2.01	100.0	187	1105
90.0	60.0	32 24.5	119 57.5	CR	51 05 14	1202	140	715	1.96	100.0	203	1552
90.0	70.0	32 04.5	120 39.0	CR	51 05 14	0702	137	786	1.75	100.0	15	178
90.0	80.0	31 45.0	121 19.0	CR	51 05 14	0042	145	695	2.08	100.0	44	63
90.0	90.0	31 25.5	121 59.0	CR	51 05 13	1846	136	762	1.79	100.0	33	107
90.0	100.0	31 06.0	122 40.0	CR	51 05 13	1315	145	656	2.20	100.0	64	352
90.0	110.0	30 46.0	123 20.5	CR	51 05 13	0608	139	711	1.96	100.0	21	254
90.0	120.0	30 26.5	124 01.0	CR	51 05 12	2149	134	767	1.75	100.0	159	508
93.0	30.0	32 49.0	117 31.5	CR	51 05 06	0843	136	656	2.07	100.0	44	262



TABLE 1. (cont.)

## CalCOFI Cruise 5105

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
93.0	40.0	32 30.0	CR	51 05 06	1441	142	567	2.51	100.0	37	670
93.0	50.0	32 10.0	CR	51 05 06	2112	138	608	2.26	50.0	116	155
93.0	60.0	31 50.0	CR	51 05 07	0348	143	828	1.73	100.0	35	781
93.0	70.0	31 29.0	CR	51 05 07	0829	142	715	1.99	100.0	22	1
93.0	80.0	31 10.0	CR	51 05 07	1649	132	758	1.74	100.0	229	812
93.0	90.0	30 50.0	CR	51 05 07	2149	140	663	2.10	100.0	191	577
97.0	32.0	32 10.5	CR	51 05 09	1459	138	676	2.04	100.0	18	146
97.0	40.0	31 55.0	CR	51 05 09	0943	134	671	2.00	100.0	261	405
97.0	50.0	31 35.0	CR	51 05 09	0350	142	639	2.22	100.0	251	590
97.0	60.0	31 15.5	CR	51 05 08	2151	139	728	1.90	100.0	100	413
97.0	70.0	30 55.0	CR	51 05 08	1609	134	718	1.87	100.0	19	79
97.0	80.0	30 35.0	CR	51 05 08	0958	132	802	1.65	100.0	124	202
97.0	90.0	30 15.0	CR	51 05 08	0326	134	745	1.80	100.0	268	84
100.0	30.0	31 39.5	CR	51 05 09	2009	133	762	1.74	100.0	193	60
100.0	40.0	31 21.0	CR	51 05 10	0251	136	752	1.81	100.0	249	516
100.0	50.0	31 01.0	CR	51 05 10	0942	138	654	2.10	100.0	107	1050
100.0	60.0	30 40.5	CR	51 05 10	1530	139	610	2.28	100.0	610	1204
100.0	70.0	30 21.0	CR	51 05 10	2206	142	765	1.86	100.0	51	68
100.0	80.0	30 01.0	CR	51 05 11	0507	134	826	1.62	100.0	13	0
100.0	90.0	29 40.5	CR	51 05 11	1025	135	810	1.67	100.0	24	476
100.0	100.0	29 20.5	CR	51 05 11	1558	138	765	1.80	100.0	63	69
100.0	110.0	29 00.5	CR	51 05 11	2150	139	716	1.94	100.0	77	295
100.0	120.0	28 40.5	CR	51 05 12	0454	143	711	2.01	100.0	51	207
103.0	35.0	30 55.5	CR	51 05 05	1727	141	696	2.03	100.0	97	101
103.0	40.0	30 45.5	CR	51 05 05	1339	139	730	1.90	100.0	108	292
103.0	50.0	30 25.5	CR	51 05 05	0711	141	718	1.96	100.0	23	41
103.0	60.0	30 06.0	CR	51 05 05	0101	143	677	2.11	100.0	101	69
103.0	70.0	29 46.0	CR	51 05 04	1924	139	691	2.01	100.0	53	195
103.0	80.0	29 26.5	CR	51 05 04	1351	137	710	1.93	100.0	44	351
107.0	35.0	30 20.0	CR	51 05 03	0221	146	739	1.97	100.0	55	27
107.0	40.0	30 10.5	CR	51 05 03	0719	136	820	1.66	100.0	63	2
107.0	50.0	29 50.5	CR	51 05 03	1316	136	750	1.81	100.0	83	186
107.0	60.0	29 31.0	CR	51 05 03	1920	134	745	1.80	100.0	28	41
107.0	70.0	29 11.0	CR	51 05 04	0126	132	770	1.72	100.0	28	302
107.0	80.0	28 51.5	CR	51 05 04	0905	136	594	2.28	100.0	52	550
110.0	35.0	29 37.5	HO	51 05 03	1846	115	882	1.30	100.0	104	156
110.0	40.0	29 35.1	HO	51 05 05	1036	113	864	1.31	100.0	23	207
110.0	50.0	29 16.5	HO	51 05 05	1626	140	717	1.95	100.0	49	224
110.0	60.0	28 56.5	HO	51 05 05	2326	142	728	1.95	100.0	79	113
110.0	70.0	28 30.5	HO	51 05 06	0555	132	779	1.69	100.0	26	204
110.0	80.0	28 17.2	HO	51 05 06	1106	143	708	2.01	100.0	14	153
110.0	90.0	27 56.7	HO	51 05 06	1736	128	919	1.40	100.0	100	507
110.0	100.0	27 34.6	HO	51 05 06	2216	136	736	1.85	100.0	62	42
110.0	110.0	27 13.2	HO	51 05 07	0506	145	756	1.91	100.0	62	349

TABLE 1. (cont.)

## CalCOFI Cruise 5105

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
113.0	35.0	29 11.5	115 39.5	HO	51 05 03	1326	629	2.10	100.0	138	427
113.0	40.0	28 57.3	116 05.5	HO	51 05 03	0956	735	1.88	100.0	19	4
113.0	50.0	28 35.2	116 45.0	HO	51 05 03	0256	772	1.72	100.0	81	49
113.0	60.0	28 19.0	117 19.9	HO	51 05 02	2131	728	1.88	100.0	26	136
113.0	70.0	28 01.2	117 53.4	HO	51 05 02	1530	814	1.60	100.0	39	374
117.0	35.0	28 37.6	115 16.0	HO	51 05 01	1246	829	1.44	100.0	39	768
117.0	40.0	28 28.7	115 35.0	HO	51 05 01	1616	762	1.72	100.0	52	113
117.0	50.0	28 03.0	116 18.0	HO	51 05 01	2256	999	1.95	100.0	22	244
117.0	60.0	27 53.6	116 58.3	HO	51 05 02	0441	852	1.58	100.0	66	57
117.0	70.0	27 42.0	117 35.7	HO	51 05 02	1116	811	1.51	100.0	26	473
120.0	35.0	28 03.7	115 54.5	HO	51 05 09	2308	278	2.49	100.0	371	1513
120.0	45.0	27 42.7	115 33.0	HO	51 05 09	1616	756	1.68	100.0	357	1171
120.0	50.0	27 33.1	115 52.0	HO	51 05 09	1247	735	1.88	100.0	63	795
120.0	60.0	27 11.5	116 36.7	HO	51 05 09	0556	746	1.82	100.0	43	173
120.0	70.0	26 51.6	117 13.5	HO	51 05 08	2306	749	1.89	100.0	48	47
120.0	80.0	26 30.9	117 51.8	HO	51 05 08	1656	692	2.06	100.0	202	202
120.0	90.0	26 05.5	118 26.7	HO	51 05 08	1006	734	1.87	100.0	4	260
120.0	100.0	25 48.0	119 07.2	HO	51 05 08	0521	804	1.62	100.0	18	564
120.0	110.0	25 31.7	119 44.9	HO	51 05 07	2111	729	1.97	100.0	2	265
123.0	40.0	27 18.5	114 51.5	HO	51 05 11	1127	654	1.96	100.0	113	5355
123.0	50.0	26 58.0	115 30.8	HO	51 05 11	1640	999	1.29	100.0	107	101
123.0	60.0	26 40.7	116 10.7	HO	51 05 12	0026	729	1.92	100.0	74	219
127.0	40.0	26 37.3	114 27.1	HO	51 05 12	1736	738	1.69	100.0	678	2799
127.0	50.0	26 22.0	115 08.0	HO	51 05 12	1211	780	1.79	100.0	22	168
127.0	60.0	26 11.0	115 51.0	HO	51 05 12	0515	773	1.63	100.0	11	121
130.0	35.0	26 19.6	113 50.3	HO	51 05 12	2306	697	1.84	100.0	515	339
130.0	40.0	26 12.0	114 11.8	HO	51 05 13	0241	831	1.61	100.0	101	56
130.0	50.0	25 57.3	114 51.7	HO	51 05 13	0836	777	1.74	100.0	44	205
130.0	60.0	25 29.0	115 22.3	HO	51 05 13	1426	790	1.70	100.0	27	45
130.0	70.0	25 08.9	116 02.2	HO	51 05 13	2011	791	1.68	100.0	105	39
130.0	80.0	24 47.8	116 41.7	HO	51 05 14	0325	760	1.75	100.0	267	43
133.0	30.0	25 54.3	113 09.8	HO	51 05 15	0046	769	1.73	100.0	132	239
133.0	40.0	25 32.6	113 47.5	HO	51 05 15	0046	732	1.90	100.0	579	59
133.0	50.0	25 10.5	114 21.4	HO	51 05 14	1856	759	1.87	100.0	146	152
133.0	60.0	24 54.5	115 00.8	HO	51 05 14	1316	449	1.80	100.0	29	33
137.0	35.0	25 10.0	113 04.5	HO	51 05 15	1305	249	1.30	100.0	30	23
137.0	40.0	25 10.0	113 04.5	HO	51 05 15	1316	764	1.83	100.0	13	34
137.0	50.0	25 00.0	113 22.8	HO	51 05 15	1656	721	1.86	100.0	60	54
137.0	60.0	24 39.8	114 01.8	HO	51 05 15	2246	736	1.86	100.0	88	1256
137.0	60.0	24 20.8	114 39.5	HO	51 05 16	0436	749	1.76	100.0	22	54

TABLE 1. (cont.)

## CalCOFI Cruise 5106

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	60.0	37 37.0	BD	51 06 08	1356	144	772	1.87	100.0	17	25
60.0	70.0	37 17.0	BD	51 06 08	2140	131	766	1.70	100.0	18	32
60.0	80.0	36 57.0	BD	51 06 09	0600	140	644	2.17	25.0	7	20
60.0	90.0	36 37.0	BD	51 06 09	1506	141	792	1.77	100.0	60	34
60.0	100.0	36 17.0	BD	51 06 09	2229	138	798	1.73	50.0	60	127
60.0	110.0	35 57.0	BD	51 06 10	0506	139	786	1.76	100.0	21	296
60.0	120.0	35 37.0	BD	51 06 10	1151	141	794	1.78	100.0	28	179
60.0	130.0	35 17.0	BD	51 06 10	1921	142	723	1.97	100.0	13	128
61.0	55.0	37 37.0	BD	51 06 06	2020	136	841	1.62	50.0	11	71
63.0	57.0	37 09.0	BD	51 06 07	0214	137	850	1.62	25.0	142	8
63.0	67.0	36 49.0	BD	51 06 08	0206	135	797	1.70	50.0	19	141
67.0	55.0	36 39.0	BD	51 06 07	0840	141	790	1.78	50.0	28	154
67.0	65.0	36 19.0	BD	51 06 07	1646	138	748	1.85	50.0	38	1234
70.0	55.0	36 03.0	BD	51 06 14	0230	138	726	1.90	12.5	8	19
70.0	60.0	35 53.0	BD	51 06 13	2106	135	847	1.59	50.0	47	441
70.0	70.0	35 33.0	BD	51 06 13	1331	135	664	2.03	50.0	24	291
70.0	80.0	35 13.0	BD	51 06 13	0311	142	776	1.82	25.0	208	392
70.0	90.0	34 53.0	BD	51 06 12	2014	140	774	1.81	50.0	182	65
70.0	100.0	34 33.0	BD	51 06 12	1300	141	735	1.93	50.0	48	65
70.0	110.0	34 13.0	BD	51 06 12	0524	143	795	1.80	100.0	45	128
70.0	120.0	33 53.0	BD	51 06 11	2126	151	809	1.87	100.0	113	107
70.0	130.0	33 33.0	BD	51 06 11	1421	139	797	1.74	100.0	47	26
73.0	51.0	35 35.5	BD	51 06 14	0906	126	917	1.37	50.0	21	198
73.0	61.0	35 16.0	BD	51 06 15	0321	135	792	1.79	100.0	40	858
77.0	55.0	34 54.5	BD	51 06 15	0321	135	748	1.80	50.0	65	89
77.0	65.0	34 34.0	BD	51 06 14	2101	141	705	2.00	50.0	67	173
80.0	55.0	34 19.0	BD	51 06 15	1001	141	842	1.67	100.0	27	91
80.0	60.0	34 09.0	BD	51 06 15	1341	142	813	1.48	50.0	17	265
80.0	70.0	33 49.0	BD	51 06 15	2006	138	837	1.65	50.0	57	90
80.0	80.0	33 29.0	BD	51 06 16	0211	141	783	1.81	50.0	41	171
80.0	90.0	33 09.0	BD	51 06 16	0906	141	809	1.74	100.0	3	11
80.0	100.0	32 49.0	BD	51 06 16	1520	139	865	1.61	100.0	5	102
80.0	110.0	32 29.0	BD	51 06 16	2226	135	838	1.61	100.0	95	209
83.0	55.0	33 44.0	YE	51 05 31	1256	157	556	2.83	100.0	76	21
83.0	70.0	33 18.5	YE	51 05 31	2240	142	668	2.13	50.0	307	193
83.0	80.0	33 04.0	YE	51 06 01	0405	129	681	1.89	50.0	38	189
83.0	90.0	32 34.5	YE	51 06 01	0916	144	712	2.02	100.0	13	33
87.0	35.0	33 50.0	YE	51 05 30	2352	129	735	1.76	50.0	728	178
87.0	40.0	33 40.0	YE	51 05 31	0345	129	741	1.74	25.0	43	1
87.0	50.0	33 28.0	YE	51 06 02	1058	69	392	1.76	25.0	7	0
87.0	60.0	33 01.0	YE	51 06 02	0627	127	686	1.86	100.0	36	305
87.0	70.0	32 39.0	YE	51 06 02	0125	153	692	2.21	100.0	17	96
87.0	80.0	32 16.0	YE	51 06 01	2116	144	680	2.11	100.0	96	231
87.0	90.0	32 01.0	YE	51 06 01	1355	157	628	2.51	100.0	16	69



TABLE 1. (cont.)

CalCOFI Cruise 5106												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
90.0	30.0	33 24.5	117 55.0	BD	51 06 20	0106	139	734	1.89	100.0	159	1163
90.0	37.0	33 11.0	118 23.5	BD	51 06 19	1844	144	803	1.76	100.0	44	71
90.0	45.0	32 54.5	118 56.0	BD	51 06 19	1336	135	805	1.67	50.0	21	4
90.0	53.0	32 38.5	119 29.0	BD	51 06 19	0850	132	822	1.61	100.0	24	10
90.0	60.0	32 25.0	119 57.5	BD	51 06 19	0236	134	846	1.59	50.0	69	838
90.0	70.0	32 04.5	120 39.0	BD	51 06 18	2021	139	840	1.66	100.0	26	14
90.0	80.0	31 45.0	121 19.0	BD	51 06 18	1111	142	777	1.82	100.0	44	208
90.0	90.0	31 25.0	121 59.0	BD	51 06 18	0505	144	737	1.95	100.0	2	152
90.0	100.0	31 04.5	122 40.0	BD	51 06 17	2306	138	800	1.73	100.0	51	517
90.0	110.0	30 44.5	123 20.0	BD	51 06 17	1650	143	791	1.81	100.0	22	602
93.0	30.0	32 50.0	117 31.5	YE	51 05 30	1446	133	764	1.75	100.0	16	5
93.0	40.0	32 30.0	118 12.5	YE	51 06 03	2042	131	699	1.87	50.0	112	3
93.0	50.0	32 09.0	118 51.0	YE	51 06 04	0036	128	760	1.69	50.0	48	0
93.0	60.0	31 48.5	119 31.0	YE	51 06 04	0706	117	774	1.51	100.0	54	78
93.0	70.0	31 29.5	120 07.5	YE	51 06 04	1306	96	951	1.01	100.0	104	83
93.0	80.0	31 09.0	120 53.0	YE	51 06 04	1911	141	704	2.00	100.0	198	284
93.0	90.0	30 50.0	121 33.5	YE	51 06 05	0155	142	712	2.00	100.0	198	273
97.0	32.0	32 09.0	117 16.5	YE	51 06 06	1727	119	805	1.48	100.0	101	87
97.0	40.0	31 58.0	117 52.5	YE	51 06 06	1216	114	795	1.44	100.0	82	38
97.0	50.0	31 36.5	118 32.5	YE	51 06 06	0711	130	709	1.84	100.0	134	515
97.0	60.0	31 16.0	119 11.0	YE	51 06 05	2355	105	905	1.16	100.0	124	2296
97.0	70.0	30 55.0	119 50.5	YE	51 06 05	1856	138	727	1.90	100.0	49	102
97.0	80.0	30 38.5	120 32.5	YE	51 06 05	1206	140	773	1.82	100.0	88	204
97.0	90.0	30 19.5	121 07.5	YE	51 06 05	0656	124	766	1.62	100.0	81	110
100.0	30.0	31 40.5	116 46.5	YE	51 06 06	2242	145	683	2.11	50.0	89	35
100.0	40.0	31 20.0	117 30.5	YE	51 06 07	0412	137	717	1.91	100.0	80	29
100.0	50.0	31 02.3	118 07.5	YE	51 06 07	0957	135	725	1.86	100.0	20	34
100.0	60.0	30 42.0	118 51.0	YE	51 06 07	1526	134	800	1.68	100.0	28	302
100.0	70.0	30 22.0	119 34.0	YE	51 06 07	2206	135	749	1.80	100.0	89	70
100.0	80.0	30 03.0	120 16.0	YE	51 06 08	0356	134	732	1.84	100.0	184	336
100.0	90.0	29 42.0	120 57.0	YE	51 06 08	0957	139	747	1.86	100.0	23	290
103.0	35.0	30 51.0	116 57.0	YE	51 06 10	0057	113	698	1.61	100.0	75	393
103.0	40.0	30 42.0	117 15.0	YE	51 06 09	2106	144	618	2.33	100.0	72	123
103.0	50.0	30 25.0	117 46.0	YE	51 06 09	1447	127	758	1.68	100.0	22	44
103.0	60.0	30 04.0	118 29.0	YE	51 06 09	0726	127	740	1.72	100.0	62	208
103.0	70.0	29 44.0	119 07.5	YE	51 06 09	0132	135	737	1.84	100.0	99	302
107.0	35.0	30 31.2	116 25.0	HO	51 06 13	0211	135	740	1.82	100.0	58	77
107.0	40.0	30 22.9	116 46.5	HO	51 06 13	0606	140	750	1.86	100.0	35	15
107.0	50.0	30 06.8	117 23.9	HO	51 06 13	1036	130	789	1.65	100.0	17	87
107.0	60.0	29 35.6	117 57.8	HO	51 06 13	1654	140	660	1.75	100.0	4	185
107.0	70.0	29 10.3	118 34.2	HO	51 06 13	2220	138	640	2.16	100.0	51	147
107.0	80.0	28 54.0	119 17.6	HO	51 06 14	0329	133	671	1.98	100.0	46	216
110.0	35.0	29 50.5	116 03.4	HO	51 06 12	2026	137	764	1.80	100.0	25	13
110.0	40.0	29 31.9	116 37.2	HO	51 06 12	1556	135	848	1.59	100.0	13	0

TABLE 1. (cont.)

## CalCOFI Cruise 5106

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
110.0	50.0	29 13.3	117 12.3	HO	51 06 12	1057	130	845	1.46	100.0	16	5
110.0	60.0	28 54.2	117 47.2	HO	51 06 12	0551	132	515	2.56	100.0	57	174
110.0	70.0	28 35.0	118 22.2	HO	51 06 12	0036	140	647	2.16	100.0	111	216
110.0	80.0	28 15.9	118 57.0	HO	51 06 11	1926	134	786	1.70	100.0	77	308
110.0	90.0	27 57.9	119 33.9	HO	51 06 11	1431	125	664	2.04	100.0	13	150
110.0	100.0	27 41.2	120 18.4	HO	51 06 11	0911	132	878	1.50	100.0	10	137
110.0	110.0	27 16.4	120 54.3	HO	51 06 11	0241	134	785	1.71	100.0	33	182
113.0	35.0	29 12.0	115 39.0	HO	51 06 06	0800	141	848	1.66	100.0	15	5
113.0	40.0	29 00.0	115 57.7	HO	51 06 06	1206	141	743	1.90	100.0	8	4
113.0	50.0	28 41.0	116 42.0	HO	51 06 06	1757	141	623	2.27	100.0	7	7
113.0	60.0	28 21.3	117 27.5	HO	51 06 06	2341	147	744	1.98	100.0	321	1037
113.0	70.0	28 02.5	118 12.2	HO	51 06 07	0625	138	752	1.84	100.0	24	62
117.0	35.0	28 38.0	115 16.0	HO	51 06 08	1206	128	734	1.88	100.0	29	471
117.0	40.0	28 27.9	115 36.0	HO	51 06 08	0816	141	846	1.67	100.0	22	14
117.0	50.0	28 12.8	116 17.0	HO	51 06 08	0226	132	702	1.88	100.0	39	26
117.0	60.0	27 47.5	116 54.0	HO	51 06 07	1951	132	555	2.36	100.0	28	44
117.0	70.0	27 30.1	117 50.5	HO	51 06 07	1256	145	702	2.06	100.0	37	97
120.0	35.0	28 03.0	114 54.0	HO	51 06 08	2038	53	315	1.67	100.0	54	270
120.0	45.0	27 43.0	115 33.0	HO	51 06 09	0111	134	706	1.90	100.0	21	105
120.0	50.0	27 28.7	115 55.0	HO	51 06 09	0450	141	840	1.68	100.0	31	142
120.0	60.0	27 14.3	116 32.7	HO	51 06 09	1127	138	787	1.76	100.0	8	188
120.0	70.0	26 52.2	117 10.9	HO	51 06 09	1806	141	475	2.97	100.0	6	104
120.0	80.0	26 34.0	117 50.2	HO	51 06 09	2321	140	643	2.17	100.0	26	156
120.0	90.0	26 15.3	118 30.0	HO	51 06 10	0431	142	584	2.43	100.0	11	369
120.0	100.0	25 59.0	119 10.0	HO	51 06 10	0826	144	727	1.99	100.0	5	475
120.0	110.0	25 37.8	119 43.8	HO	51 06 10	1436	140	797	1.75	100.0	30	357
123.0	40.0	27 18.0	114 51.5	HO	51 05 30	2055	125	840	1.49	100.0	632	69
123.0	50.0	26 54.7	115 28.4	HO	51 05 31	0131	136	834	1.63	100.0	287	553
123.0	60.0	26 38.2	116 09.0	HO	51 05 31	0736	142	728	1.95	100.0	27	302
127.0	40.0	26 39.7	114 31.0	HO	51 06 01	0236	137	801	1.71	100.0	113	56
127.0	50.0	26 23.6	115 07.3	HO	51 05 31	2011	144	835	1.72	100.0	56	77
127.0	60.0	26 03.2	115 47.5	HO	51 05 31	1356	126	900	1.40	100.0	87	16
130.0	35.0	26 22.2	113 54.3	HO	51 06 01	0836	133	857	1.55	100.0	18	0
130.0	40.0	26 08.8	114 07.3	HO	51 06 01	1216	142	778	1.82	100.0	39	172
130.0	50.0	25 50.4	114 50.0	HO	51 06 01	1846	126	874	1.44	100.0	123	1364
130.0	60.0	25 26.5	115 28.1	HO	51 06 02	0246	141	804	1.75	100.0	170	21
130.0	70.0	25 08.5	116 02.0	HO	51 06 02	0711	135	809	1.67	100.0	38	120
130.0	80.0	24 51.4	116 41.8	HO	51 06 02	1131	145	766	1.89	100.0	208	5
130.0	90.0	24 27.3	117 18.0	HO	51 06 02	2306	137	770	1.78	100.0	92	8
133.0	30.0	25 56.5	113 12.0	CR	51 05 31	0719	119	730	1.63	100.0	19	82
133.0	40.0	25 34.0	113 46.0	CR	51 05 31	1316	143	697	2.05	100.0	34	68
133.0	50.0	25 14.5	114 24.0	CR	51 05 31	1844	137	692	1.99	100.0	201	199
133.0	60.0	24 54.5	115 01.5	CR	51 06 01	0021	137	429	1.88	100.0	83	1021
137.0	35.0	25 08.0	113 05.0	CR	51 06 01	1926	140	708	1.98	100.0	73	166

TABLE 1. (cont.)

## CalCOFI Cruise 5106

Line	Station	Lat.(N) deg. min.	Long.-(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
137.0	40.0	24 58.8	113 23.5	CR	51 06 01	1655	151	707	2.14	100.0	4	51
137.0	50.0	24 39.0	114 02.5	CR	51 06 01	1112	139	689	2.02	100.0	31	175
137.0	60.0	24 19.0	114 40.5	CR	51 06 01	0556	137	795	1.72	100.0	89	143
140.0	35.0	24 35.0	112 42.5	CR	51 06 02	0241	137	741	1.85	12.5	2	0
140.0	40.0	24 25.0	113 01.5	CR	51 06 02	0711	139	737	1.88	100.0	11	362
140.0	50.0	24 06.0	113 39.5	CR	51 06 02	1245	136	771	1.76	100.0	2	944
140.0	60.0	23 45.5	114 17.5	CR	51 06 02	1816	143	754	1.89	100.0	26	74
140.0	70.0	23 25.0	114 55.0	CR	51 06 03	0226	136	729	1.87	100.0	29	18
140.0	80.0	23 05.0	115 32.5	CR	51 06 03	0726	142	764	1.86	100.0	45	61
140.0	90.0	22 45.5	116 11.0	CR	51 06 03	1241	141	737	1.91	100.0	13	25
143.0	30.0	24 11.0	112 03.0	CR	51 06 06	2116	128	671	1.90	100.0	18	4
143.0	35.0	24 01.0	112 41.0	CR	51 06 07	0041	140	783	1.91	50.0	12	3
143.0	40.0	23 51.0	112 41.0	CR	51 06 07	0416	142	696	2.04	50.0	59	206
143.0	50.0	23 30.0	113 19.5	CR	51 06 07	0911	144	661	2.18	50.0	15	1700
143.0	60.0	23 10.0	113 57.0	CR	51 06 07	1416	139	698	1.99	100.0	46	70
147.0	25.0	23 46.5	111 22.5	CR	51 06 08	1501	141	682	2.07	100.0	4	1
147.0	30.0	23 39.0	111 36.0	CR	51 06 08	1226	141	706	1.99	50.0	82	1461
147.0	40.0	23 16.0	112 19.0	CR	51 06 08	0631	141	726	1.94	50.0	31	5
147.0	50.0	22 56.0	112 56.5	CR	51 06 08	0106	139	754	1.85	50.0	15	55
147.0	60.0	22 36.0	113 33.5	CR	51 06 07	1926	140	665	2.09	100.0	31	335
150.0	25.0	23 12.0	111 01.5	CR	51 06 05	1921	140	583	2.41	100.0	63	14
150.0	30.0	23 02.0	111 20.0	CR	51 06 05	1636	143	469	3.05	100.0	11	6
150.0	40.0	22 42.0	111 57.5	CR	51 06 05	1110	144	746	1.93	50.0	33	16
150.0	50.0	22 21.0	112 34.0	CR	51 06 05	0546	142	695	2.04	100.0	10	16
150.0	60.0	22 01.0	113 11.0	CR	51 06 04	2155	137	757	1.81	100.0	52	84
150.0	70.0	21 40.0	113 48.0	CR	51 06 04	1626	135	756	1.78	100.0	47	359
150.0	80.0	21 19.5	114 25.0	CR	51 06 04	1111	136	698	1.95	100.0	22	678
150.0	90.0	20 59.0	115 01.8	CR	51 06 04	0327	135	714	1.88	100.0	178	6
153.0	20.0	22 47.5	110 22.0	CR	51 06 08	2346	140	637	2.20	50.0	63	16
153.0	30.0	22 28.0	110 59.5	CR	51 06 09	0506	141	642	2.19	100.0	10	66
153.0	40.0	22 08.5	111 38.0	CR	51 06 09	1011	140	683	2.05	50.0	23	9
153.0	50.0	21 47.0	112 13.5	CR	51 06 09	1536	141	728	1.93	100.0	9	79
157.0	10.0	22 33.0	109 23.0	CR	51 06 10	2056	144	653	2.21	50.0	58	6
157.0	20.0	22 13.0	110 00.0	CR	51 06 10	1556	139	711	1.96	100.0	182	140
157.0	30.0	21 52.5	110 37.5	CR	51 06 10	1036	141	682	2.06	100.0	21	51
157.0	40.0	21 32.5	111 14.5	CR	51 06 10	0356	139	714	1.94	50.0	69	231
157.0	50.0	21 12.5	111 52.0	CR	51 06 09	2116	140	666	2.09	100.0	40	24



TABLE 1. (cont.)

## CalCOFI Cruise 5107

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
40.0	45.0	41 33.0	BD	51 07 18	1502	141	852	1.65	100.0	11	6
40.0	50.0	41 23.0	BD	51 07 18	1126	141	755	1.87	100.0	9	64
40.0	60.0	41 03.0	BD	51 07 18	0226	140	608	2.30	25.0	38	14
40.0	80.0	40 23.0	BD	51 07 17	1328	138	837	1.65	100.0	23	4
40.0	90.0	40 02.0	BD	51 07 17	0707	143	897	1.60	100.0	4	7
40.0	100.0	39 42.0	BD	51 07 17	0137	141	880	1.60	100.0	50	4
40.0	110.0	39 23.0	BD	51 07 16	1722	132	946	1.40	100.0	11	7
43.0	60.0	40 28.0	BD	51 07 19	0505	158	821	1.92	50.0	28	12
47.0	55.0	40 04.0	BD	51 07 19	1546	136	861	1.58	50.0	19	21
47.0	60.0	39 54.0	BD	51 07 19	1113	131	918	1.42	50.0	22	52
50.0	55.0	39 30.0	BD	51 07 14	1136	132	900	1.47	100.0	3	15
50.0	60.0	39 20.0	BD	51 07 14	1516	142	883	1.61	100.0	30	13
50.0	70.0	39 00.0	BD	51 07 14	2131	128	941	1.36	50.0	22	16
50.0	80.0	38 40.0	BD	51 07 15	0347	145	650	2.23	25.0	7	10
50.0	90.0	38 20.0	BD	51 07 15	1105	138	576	2.40	50.0	41	66
50.0	100.0	38 00.0	BD	51 07 15	1723	142	897	1.58	100.0	169	63
50.0	110.0	37 40.0	BD	51 07 15	2310	137	943	1.46	100.0	125	7
53.0	54.0	38 58.0	BD	51 07 13	0450	143	685	2.09	50.0	61	11
53.0	64.0	38 38.0	BD	51 07 13	2115	128	921	1.40	50.0	10	77
57.0	57.0	38 24.0	BD	51 07 13	0805	146	864	1.68	100.0	7	52
57.0	64.0	38 04.0	BD	51 07 13	1401	144	723	1.99	50.0	27	21
60.0	60.0	37 37.0	BD	51 07 12	2255	128	802	1.60	100.0	22	9
60.0	70.0	37 17.0	BD	51 07 11	2352	139	840	1.65	50.0	38	20
60.0	80.0	36 57.0	BD	51 07 11	1646	138	788	1.75	50.0	23	27
60.0	90.0	36 37.0	BD	51 07 11	0950	140	805	1.73	100.0	53	84
60.0	100.0	36 17.0	BD	51 07 11	0035	145	923	1.58	100.0	44	12
60.0	110.0	35 57.0	BD	51 07 10	1422	137	894	1.54	100.0	4	2
60.0	120.0	35 37.0	BD	51 07 10	0455	132	879	1.50	100.0	21	17
61.0	55.0	37 37.0	BD	51 07 12	1805	136	828	1.64	100.0	43	9
63.0	57.0	37 09.0	BD	51 07 12	1320	145	693	2.08	100.0	22	48
63.0	67.0	36 49.0	BD	51 07 12	0631	142	758	1.88	25.0	25	21
67.0	55.0	36 39.0	BD	51 07 06	1246	141	779	1.81	100.0	2	16
67.0	65.0	36 19.0	BD	51 07 06	2239	145	786	1.84	100.0	17	6
70.0	55.0	36 03.0	BD	51 07 03	0643	137	851	1.61	100.0	86	19
70.0	60.0	35 53.0	BD	51 07 04	1722	136	824	1.65	50.0	5	19
70.0	70.0	35 33.0	BD	51 07 07	0620	139	820	1.69	100.0	22	29
70.0	80.0	35 13.0	BD	51 07 07	1409	141	814	1.73	50.0	40	6
70.0	90.0	34 53.0	BD	51 07 07	1959	133	886	1.51	50.0	55	9
70.0	100.0	34 33.0	BD	51 07 08	0243	144	859	1.68	100.0	36	18
70.0	110.0	34 13.0	BD	51 07 08	1116	137	842	1.63	100.0	5	37
70.0	120.0	33 53.0	BD	51 07 08	1940	135	851	1.59	100.0	24	39
73.0	51.0	35 35.5	BD	51 07 03	1325	132	846	1.56	50.0	11	136
73.0	61.0	35 16.0	BD	51 07 04	1021	139	798	1.75	100.0	44	366
77.0	55.0	34 54.5	BD	51 07 03	1905	139	740	1.90	100.0	33	604

TABLE 1. (cont.)

## CalCOFI Cruise 5107

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
77.0	65.0	34 34.0	121 55.0	BD	51 07 04	0213	149	659	2.26	100.0	14	1914
80.0	70.0	33 49.0	121 54.0	PT	51 07 01	1801	151	787	1.92	100.0	12	100
80.0	80.0	33 30.0	122 36.0	PT	51 07 02	0125	135	784	1.73	100.0	13	18
80.0	90.0	33 10.0	123 21.0	PT	51 07 02	0916	131	790	1.66	100.0	14	21
80.0	100.0	32 49.0	124 54.0	PT	51 07 02	1541	125	737	1.69	100.0	19	41
80.0	110.0	32 29.0	124 34.5	PT	51 07 02	2220	131	758	1.73	100.0	15	10
85.0	40.0	33 57.0	119 11.0	PT	51 07 07	1950	138	875	1.58	100.0	207	23
90.0	30.0	33 24.0	117 56.0	PT	51 07 06	0806	134	729	1.84	100.0	30	377
90.0	37.0	33 10.0	118 23.0	PT	51 07 06	0246	145	881	1.65	100.0	111	405
90.0	53.0	32 36.0	119 31.0	PT	51 07 05	1506	146	714	2.05	100.0	21	2
90.0	60.0	32 22.0	119 55.0	PT	51 07 05	0956	132	752	1.75	100.0	17	64
90.0	70.0	32 04.0	120 37.0	PT	51 07 05	0130	159	666	2.38	100.0	28	27
90.0	80.0	31 45.0	121 19.0	PT	51 07 04	1750	138	700	1.98	100.0	33	102
90.0	90.0	31 27.5	122 00.0	PT	51 07 04	0840	134	774	1.74	100.0	9	276
90.0	100.0	31 05.0	122 40.0	PT	51 07 04	0111	134	791	1.70	100.0	18	771
90.0	110.0	30 45.0	123 20.0	PT	51 07 03	1530	139	781	1.78	100.0	12	614
93.0	30.0	32 50.0	117 31.5	PT	51 07 10	2321	136	762	1.78	100.0	38	105
93.0	40.0	32 24.0	118 25.0	PT	51 07 10	1226	146	727	2.01	100.0	19	36
93.0	50.0	32 05.0	119 03.0	PT	51 07 10	0656	144	686	2.08	100.0	19	35
93.0	80.0	31 11.0	120 55.0	PT	51 07 09	1336	143	682	2.17	100.0	76	119
93.0	90.0	30 59.0	121 33.0	PT	51 07 09	0916	138	726	1.90	100.0	21	70
97.0	32.0	32 11.5	117 17.0	PT	51 07 11	1619	128	731	1.75	100.0	11	117
97.0	40.0	31 56.0	117 49.0	PT	51 07 11	2145	132	684	1.92	100.0	23	88
97.0	50.0	31 39.0	118 25.0	PT	51 07 12	0446	135	738	1.83	100.0	7	176
97.0	60.0	31 19.0	119 05.0	PT	51 07 12	1211	128	783	1.63	100.0	20	210
97.0	70.0	30 57.5	119 45.5	PT	51 07 12	1936	145	732	1.98	100.0	12	77
97.0	80.0	30 40.5	120 23.0	PT	51 07 13	0426	135	751	1.80	100.0	21	185
97.0	90.0	30 15.0	121 11.0	PT	51 07 13	1416	139	688	2.02	100.0	25	1036
100.0	40.0	31 21.0	117 27.0	PT	51 07 15	2116	141	726	1.94	100.0	16	113
100.0	50.0	31 01.0	118 06.0	PT	51 07 15	1307	136	759	1.79	100.0	8	57
100.0	60.0	30 43.0	118 49.0	PT	51 07 15	0556	156	575	2.72	100.0	6	134
100.0	70.0	30 21.0	119 27.0	PT	51 07 14	2231	146	567	2.58	100.0	2	16
100.0	80.0	30 03.0	120 03.0	PT	51 07 14	1556	138	725	1.90	100.0	30	502
100.0	90.0	29 38.0	120 51.0	PT	51 07 14	0826	146	608	2.40	100.0	11	318
100.0	100.0	29 21.0	121 27.0	PT	51 07 13	0001	142	626	2.27	100.0	146	135
110.0	80.0	28 16.5	118 57.5	CR	51 07 05	2004	144	774	1.86	100.0	49	101
110.0	90.0	27 58.0	119 35.0	CR	51 07 05	1303	142	783	1.82	100.0	26	209
120.0	35.0	28 03.0	114 54.0	CR	51 07 03	0711	69	700	0.98	100.0	217	2783
120.0	45.0	27 43.0	115 33.0	CR	51 07 03	1209	141	717	1.96	100.0	22	89
120.0	50.0	27 33.0	115 52.5	CR	51 07 03	1602	130	779	1.67	100.0	30	57
120.0	60.0	27 13.0	116 31.5	CR	51 07 03	2125	141	683	2.06	100.0	72	72
120.0	70.0	26 52.5	117 10.0	CR	51 07 04	0456	144	721	1.99	100.0	53	128
120.0	80.0	26 32.5	117 48.5	CR	51 07 04	1023	134	799	1.68	100.0	27	163
120.0	90.0	26 13.0	118 27.5	CR	51 07 04	1541	140	787	1.77	100.0	26	63

TABLE 1. (cont.)

CalCOFI Cruise 5107												
Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
123.0	40.0	27 18.0	114 51.5	CR	51 07 03	0124	147	750	1.96	100.0	45	11
123.0	50.0	26 58.0	115 30.5	CR	51 07 02	2015	141	768	1.83	100.0	56	234
123.0	60.0	26 38.5	116 09.0	CR	51 07 02	1450	128	815	1.57	100.0	37	423
127.0	40.0	26 42.5	114 30.5	CR	51 07 01	2155	144	745	1.93	100.0	135	57
127.0	50.0	26 22.0	115 08.5	CR	51 07 01	0335	138	785	1.76	100.0	207	19
127.0	60.0	26 02.0	115 47.0	CR	51 07 02	0854	133	807	1.65	100.0	4	48
130.0	35.0	26 19.0	113 48.5	CR	51 06 29	2257	133	862	1.55	100.0	160	11
130.0	40.0	26 09.0	114 07.5	CR	51 06 29	1926	141	769	1.83	100.0	189	92
130.0	50.0	25 48.5	114 46.0	CR	51 06 29	1411	138	775	1.78	100.0	37	47
130.0	60.0	25 28.0	115 23.5	CR	51 06 29	0453	158	907	1.74	100.0	38	186
133.0	30.0	25 54.5	113 07.5	CR	51 06 30	0425	141	679	2.07	100.0	29	274
133.0	40.0	25 34.5	113 45.5	CR	51 06 30	0914	137	754	1.82	100.0	5	15
133.0	50.0	25 14.5	114 24.0	CR	51 06 30	1458	142	747	1.91	100.0	15	12
137.0	35.0	25 10.0	113 04.5	CR	51 07 01	0735	116	903	1.28	100.0	27	411
137.0	40.0	25 00.0	113 23.5	CR	51 07 01	0326	129	790	1.63	100.0	126	41
137.0	50.0	24 40.0	114 01.5	CR	51 06 30	2025	144	816	1.76	100.0	123	1



TABLE 1. (cont.)

## CalCOFI Cruise 5108

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
40.0	38.0	41 47.2	124 27.8	BD	51 08 14	1643	72	481	100.0	3	38
40.0	40.0	41 43.2	124 37.8	BD	51 08 14	1422	142	532	100.0	1	1
40.0	50.0	41 23.0	125 23.0	BD	51 08 14	0456	132	571	100.0	17	21
40.0	60.0	41 03.0	126 09.0	BD	51 08 13	2130	136	546	50.0	10	14
40.0	70.0	40 42.0	126 55.0	BD	51 08 13	1432	140	474	50.0	8	64
40.0	80.0	40 23.0	127 40.0	BD	51 08 13	0656	122	569	100.0	8	26
43.0	42.0	41 04.2	124 20.5	BD	51 08 14	2348	66	484	50.0	3	1
43.0	50.0	40 48.0	124 57.0	BD	51 08 15	0606	127	558	50.0	5	1
43.0	60.0	40 28.0	125 43.0	BD	51 08 15	1202	132	545	100.0	11	12
47.0	50.0	40 14.0	124 32.2	BD	51 08 16	0404	143	593	100.0	9	5
47.0	60.0	39 54.0	125 18.0	BD	51 08 15	1836	138	566	50.0	5	3
50.0	40.0	39 46.0	123 54.2	BD	51 08 11	0202	70	507	100.0	2	10
50.0	50.0	39 40.0	124 07.8	BD	51 08 11	0416	142	554	100.0	4	0
50.0	60.0	39 20.0	124 52.0	BD	51 08 11	1519	129	510	100.0	6	12
50.0	70.0	39 00.0	125 36.5	BD	51 08 12	0206	143	449	100.0	12	18
53.0	80.0	38 40.0	126 21.0	BD	51 08 12	1042	118	590	50.0	7	22
53.0	55.0	38 56.0	123 51.2	BD	51 08 10	1823	69	459	100.0	0	43
53.0	65.0	38 36.0	124 48.5	BD	51 08 10	0555	135	628	50.0	9	5
57.0	51.0	38 30.0	123 22.0	BD	51 08 09	0248	70	461	100.0	0	4
57.0	55.0	38 22.0	123 39.5	BD	51 08 09	0511	126	573	100.0	9	5
57.0	65.0	38 02.0	124 23.5	BD	51 08 09	1336	138	530	100.0	10	10
60.0	55.0	37 47.5	123 15.0	BD	51 08 07	1018	69	465	100.0	59	108
60.0	60.0	37 37.0	123 37.0	BD	51 08 07	0420	136	585	100.0	38	22
60.0	70.0	37 17.0	124 21.0	BD	51 08 06	2059	131	641	100.0	13	7
60.0	80.0	36 57.0	125 04.0	BD	51 08 06	1311	140	531	100.0	7	6
63.0	52.0	37 19.0	122 36.2	BD	51 08 01	0601	144	482	100.0	10	5
63.0	55.0	37 13.0	122 49.5	BD	51 08 01	2053	73	385	100.0	4	285
63.0	65.0	36 53.0	123 32.0	BD	51 08 02	0551	143	455	100.0	6	41
67.0	50.0	36 49.0	122 04.6	BD	51 08 03	0018	69	457	100.0	3	14
67.0	55.0	36 39.0	122 26.0	BD	51 08 02	1927	107	469	100.0	56	456
67.0	65.0	36 19.0	123 09.0	BD	51 08 02	1242	139	520	100.0	15	16
70.0	51.0	36 10.4	121 45.7	BD	51 08 03	0611	132	550	100.0	5	14
70.0	60.0	35 53.0	122 23.0	BD	51 08 04	1756	134	559	100.0	29	66
70.0	70.0	35 33.0	123 06.0	BD	51 08 05	0036	137	547	100.0	2	16
70.0	80.0	35 13.0	123 48.0	BD	51 08 05	0711	137	545	100.0	6	5
73.0	50.0	35 37.0	121 16.6	BD	51 08 03	1218	72	433	100.0	1	6
73.0	60.0	35 18.0	121 58.4	BD	51 08 04	1046	142	528	100.0	6	78
77.0	50.0	35 04.4	120 52.0	BD	51 08 03	1723	67	480	100.0	4	10
77.0	55.0	34 54.5	121 13.0	BD	51 08 03	2051	131	555	100.0	26	14
77.0	65.0	34 34.0	121 55.0	BD	51 08 04	0306	142	499	100.0	26	7
80.0	51.0	34 27.0	120 34.0	CR	51 07 31	1542	69	397	100.0	5	4
80.0	55.0	34 19.5	120 48.0	CR	51 07 31	2120	136	476	100.0	45	30
											11

TABLE 1. (cont.)

## CalCOFI Cruise 5108

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
80.0	60.0	34 09.0	121 08.5	CR	51 08 01	0126	140	470	2.98	100.0	9	10
80.0	70.0	33 48.0	121 50.0	CR	51 08 01	0706	145	499	2.91	100.0	1	1
80.0	80.0	33 28.0	122 30.5	CR	51 08 01	1304	144	478	3.01	100.0	2	2
85.0	38.0	34 01.5	119 02.5	CR	51 08 02	2058	134	514	2.60	100.0	43	31
85.0	40.0	33 56.5	119 09.5	CR	51 08 02	1911	138	438	3.15	100.0	20	295
85.0	50.0	33 36.8	119 51.5	CR	51 08 02	1406	133	476	2.79	100.0	3	0
85.0	60.0	33 12.5	120 38.5	CR	51 08 02	0750	133	536	2.49	100.0	5	13
85.0	70.0	32 54.5	121 17.0	CR	51 08 02	0216	140	524	2.68	100.0	32	44
85.0	80.0	32 36.0	121 56.0	CR	51 08 01	1958	129	565	2.28	100.0	18	64
87.0	35.0	33 50.0	118 37.0	CR	51 08 03	0011	126	503	2.51	100.0	31	10
90.0	28.0	33 28.0	117 46.5	CR	51 08 03	0646	128	500	2.56	100.0	66	367
90.0	30.0	33 19.5	117 55.0	CR	51 08 03	0840	126	563	2.25	100.0	10	19
90.0	37.0	33 11.0	118 25.5	CR	51 08 04	1125	111	618	1.79	100.0	11	305
90.0	45.0	32 54.0	118 55.8	CR	51 08 04	1624	137	520	2.63	100.0	5	15
90.0	53.0	32 38.0	119 28.0	CR	51 08 04	2044	128	636	2.01	100.0	11	2
90.0	60.0	32 25.5	119 55.0	CR	51 08 05	0057	151	518	2.91	100.0	11	123
90.0	70.0	32 04.7	120 39.0	CR	51 08 05	0642	142	521	2.72	100.0	9	25
90.0	80.0	31 45.0	121 18.5	CR	51 08 05	1241	143	490	2.93	100.0	36	56
90.0	90.0	31 25.0	121 59.0	CR	51 08 05	1846	146	513	2.84	100.0	11	20
90.0	100.0	31 04.5	122 40.0	CR	51 08 06	0036	142	515	2.75	100.0	11	61
93.0	27.0	32 56.0	117 17.0	CR	51 08 07	1813	62	459	1.35	100.0	28	11
93.0	30.0	32 49.5	117 30.5	CR	51 08 07	1516	135	533	2.53	100.0	14	0
93.0	40.0	32 31.5	118 09.0	CR	51 08 07	1050	133	528	2.52	100.0	9	79
93.0	50.0	32 03.0	118 50.0	CR	51 08 07	0411	138	527	2.62	100.0	69	56
93.0	60.0	31 45.5	119 31.5	CR	51 08 06	2257	147	564	2.61	100.0	66	9
93.0	70.0	31 27.5	120 13.0	CR	51 08 06	1721	113	621	1.82	100.0	27	33
93.0	80.0	31 10.0	120 54.5	CR	51 08 06	1045	134	558	2.40	100.0	29	105
97.0	30.0	32 15.2	117 09.0	CR	51 08 07	2238	35	343	1.02	100.0	111	901
97.0	32.0	32 11.5	117 17.0	CR	51 08 08	0056	125	573	2.18	100.0	100	254
97.0	40.0	32 55.5	117 50.0	CR	51 08 08	0526	148	462	3.20	100.0	20	4
97.0	50.0	31 35.5	118 30.5	CR	51 08 08	1140	136	539	2.52	100.0	9	43
97.0	60.0	31 15.5	119 10.5	CR	51 08 08	1941	142	538	2.63	100.0	54	4
97.0	70.0	30 55.0	119 50.5	CR	51 08 09	0106	132	506	2.62	100.0	175	15
97.0	80.0	30 35.5	120 31.0	CR	51 08 09	0627	139	490	2.85	100.0	41	259
100.0	29.0	31 41.2	116 43.0	CR	51 08 10	1310	70	411	1.69	100.0	8	24
100.0	30.0	31 40.5	116 47.2	CR	51 08 10	1204	118	656	1.80	100.0	21	4
100.0	40.0	31 21.0	117 27.0	CR	51 08 10	0532	130	523	2.48	100.0	16	2
100.0	50.0	31 01.0	118 07.0	CR	51 08 10	0036	114	576	1.98	100.0	40	11
100.0	60.0	30 41.0	118 47.5	CR	51 08 09	1922	137	503	2.73	100.0	48	63
100.0	70.0	30 20.5	119 27.0	CR	51 08 09	1436	108	589	1.84	100.0	15	42
105.0	32.0	30 45.0	116 21.0	CR	51 08 10	1854	55	320	1.73	100.0	40	20
105.0	35.0	30 39.0	116 33.0	CR	51 08 10	2015	133	524	2.54	100.0	67	40
105.0	40.0	30 28.5	116 54.0	CR	51 08 11	0041	134	504	2.67	100.0	58	4
105.0	50.0	30 08.5	117 34.5	CR	51 08 11	0701	136	472	2.87	100.0	38	82

TABLE 1. (cont.)

## CalCOFI Cruise 5108

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
105.0	60.0	29 48.5	118 14.5	CR	51 08 11	1221	132	560	2.35	100.0	21
110.0	35.0	29 45.0	116 02.5	PT	51 08 14	0126	134	483	2.77	100.0	1
110.0	40.0	29 36.0	116 21.0	PT	51 08 13	2116	134	511	2.63	100.0	88
110.0	50.0	29 16.0	116 59.0	PT	51 08 13	1446	139	535	2.60	100.0	15
110.0	60.0	28 56.5	117 39.0	PT	51 08 13	0916	141	527	2.68	100.0	13
115.0	27.0	29 11.0	114 56.0	PT	51 08 12	0028	49	391	1.26	100.0	32
115.0	30.0	29 05.0	115 08.0	PT	51 08 12	0252	69	367	1.88	100.0	844
115.0	35.0	28 56.5	115 27.5	PT	51 08 12	0631	145	461	3.15	100.0	266
115.0	40.0	28 47.0	115 48.0	PT	51 08 12	1026	142	469	3.02	100.0	0
115.0	50.0	28 26.0	116 24.5	PT	51 08 12	1736	134	538	2.49	100.0	46
115.0	60.0	28 05.0	117 05.0	PT	51 08 13	0010	136	470	2.90	100.0	87
120.0	25.0	28 21.0	114 16.5	PT	51 08 11	0524	40	198	2.04	100.0	44
120.0	30.0	28 12.0	114 36.0	PT	51 08 11	0143	58	210	2.77	50.0	622
120.0	35.0	28 03.0	114 54.0	PT	51 08 10	2143	65	270	2.42	100.0	1015
120.0	45.0	27 44.0	115 33.0	PT	51 08 10	1511	135	551	2.46	100.0	290
120.0	50.0	27 27.0	115 52.0	PT	51 08 10	1041	143	508	2.82	100.0	8
120.0	60.0	27 10.0	116 30.0	PT	51 08 10	0446	141	505	2.79	100.0	47
120.0	70.0	26 52.0	117 10.0	PT	51 08 09	2221	138	495	2.80	100.0	2624
120.0	80.0	26 34.0	117 49.0	PT	51 08 09	1601	131	522	2.51	100.0	392
120.0	90.0	26 14.0	118 32.5	PT	51 08 09	1001	137	515	2.65	100.0	37
123.0	37.0	27 23.0	114 42.5	PT	51 08 02	0335	52	640	0.80	50.0	454
123.0	40.0	27 16.0	114 55.5	PT	51 08 02	0621	134	515	2.61	50.0	220
123.0	50.0	27 04.0	115 30.0	PT	51 08 02	1156	152	459	3.30	100.0	553
123.0	60.0	26 39.0	116 09.0	PT	51 08 02	1836	136	560	2.42	100.0	71
127.0	34.0	26 55.5	114 06.3	PT	51 08 03	1828	55	339	1.64	100.0	25
127.0	40.0	26 44.0	114 29.5	PT	51 08 03	1355	148	481	3.08	100.0	583
127.0	50.0	26 23.5	115 08.0	PT	51 08 03	0715	139	573	2.43	100.0	495
127.0	60.0	26 04.0	115 47.0	PT	51 08 03	0101	139	571	2.43	100.0	83
130.0	30.0	26 29.5	113 29.2	PT	51 08 04	1224	42	301	2.43	100.0	61
130.0	35.0	26 22.0	113 50.0	PT	51 08 04	1601	140	508	1.40	100.0	2545
130.0	50.0	25 49.0	114 45.5	PT	51 08 05	0320	133	587	2.76	100.0	114
130.0	60.0	25 28.0	115 26.0	PT	51 08 05	0926	137	548	2.34	100.0	553
133.0	25.0	26 04.5	112 48.0	PT	51 08 06	1138	58	238	2.51	100.0	108
133.0	30.0	25 53.0	113 28.0	PT	51 08 06	0536	132	423	2.45	100.0	6716
133.0	40.0	25 35.0	113 56.0	PT	51 08 05	2341	133	284	3.13	100.0	2
133.0	50.0	25 14.5	114 24.0	PT	51 08 05	1716	137	548	2.51	100.0	15
137.0	23.0	25 35.0	112 18.5	PT	51 08 07	0628	45	270	1.67	50.0	652
137.0	30.0	25 21.0	112 46.0	PT	51 08 07	1046	126	589	2.14	100.0	1412
137.0	40.0	25 03.0	113 23.0	PT	51 08 07	1701	123	544	2.26	100.0	46
137.0	50.0	24 40.0	114 02.0	PT	51 08 07	2311	130	564	2.30	100.0	830
											412



TABLE 1. (cont.)

## CalCOFI Cruise 5109

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	37 33.2	124 35.5	PT	51 09 02	0456	131	403	3.26	100.0	11	12
60.0	37 13.5	124 13.0	PT	51 09 01	1916	146	375	3.91	100.0	3	2
60.0	36 55.0	125 00.0	PT	51 09 01	1251	138	450	3.06	50.0	4	1
60.0	36 39.0	125 43.5	PT	51 09 01	0736	135	424	3.19	100.0	2	11
70.0	35 53.0	122 23.0	PT	51 08 30	2005	130	470	2.76	100.0	1	4
70.0	35 28.6	123 10.0	PT	51 08 31	0310	134	416	3.22	100.0	1	2
70.0	35 07.0	123 52.8	PT	51 08 31	0906	115	504	2.28	100.0	2	3
70.0	34 53.0	124 30.0	PT	51 08 31	1421	135	412	3.29	100.0	0	39
73.0	35 18.0	121 58.4	PT	51 08 30	1356	128	463	2.77	100.0	1	0
77.0	35 04.4	120 52.0	PT	51 08 29	2122	67	411	1.62	100.0	17	0
77.0	34 54.0	121 18.7	PT	51 08 30	0120	130	453	2.86	100.0	18	0
77.0	34 38.5	121 00.8	PT	51 08 30	0712	133	454	2.93	100.0	2	1
80.0	34 26.5	120 32.5	BD	51 09 12	2058	68	436	1.56	100.0	16	24
80.0	34 19.0	120 48.0	BD	51 09 12	1806	136	539	2.53	100.0	12	24
80.0	34 09.0	121 09.0	BD	51 09 12	1451	141	522	2.71	100.0	0	6
80.0	33 49.0	121 51.0	BD	51 09 12	0846	133	528	2.52	100.0	1	10
80.0	33 29.0	122 32.0	BD	51 09 12	0221	141	511	2.76	100.0	8	11
80.0	33 09.0	123 13.0	BD	51 09 11	1931	146	463	3.16	100.0	10	1
80.0	32 49.0	123 54.0	BD	51 09 11	1232	139	507	2.75	100.0	10	51
83.0	33 44.0	120 25.0	PT	51 09 08	0726	127	372	3.42	100.0	2	1
85.0	34 00.4	119 03.0	PT	51 09 08	1942	52	293	1.77	100.0	13	10
85.0	33 57.4	119 10.8	PT	51 09 08	1751	121	421	2.88	100.0	3	1
85.0	33 37.4	119 50.1	PT	51 09 08	1136	131	357	3.66	100.0	1	132
90.0	33 28.5	117 46.7	BD	51 09 09	0611	136	499	2.73	100.0	81	2
90.0	33 24.5	117 55.0	BD	51 09 09	0802	126	519	2.43	100.0	9	2
90.0	33 11.0	118 23.5	BD	51 09 09	1212	141	496	2.85	100.0	0	4
90.0	32 54.5	118 56.0	BD	51 09 09	1721	133	528	2.52	100.0	4	0
90.0	32 38.5	119 29.0	BD	51 09 09	2336	129	535	2.41	100.0	23	3
90.0	32 25.0	119 57.5	BD	51 09 10	0436	138	506	2.73	100.0	24	22
90.0	32 04.5	120 39.0	BD	51 09 10	1121	133	528	2.52	100.0	1	8
93.0	32 56.0	117 19.2	BD	51 09 09	0058	64	475	1.34	100.0	63	36
93.0	32 50.0	117 31.5	BD	51 09 08	2116	128	563	2.28	100.0	9	1
93.0	32 30.0	118 12.5	BD	51 09 08	1528	138	471	2.94	100.0	1	1
93.0	32 10.0	118 53.5	BD	51 09 08	0841	134	534	2.52	100.0	16	5
97.0	32 15.4	117 08.8	BD	51 09 07	1343	49	354	1.39	100.0	39	388
97.0	32 11.5	117 17.0	BD	51 09 07	1502	138	503	2.74	100.0	12	10
97.0	31 55.5	117 50.0	BD	51 09 07	2011	122	511	2.14	100.0	23	4
97.0	31 35.5	118 30.5	BD	51 09 08	0208	141	515	2.74	100.0	13	0
100.0	31 42.2	116 43.4	BD	51 09 07	0621	45	379	1.17	100.0	20	336
100.0	31 40.5	116 46.5	BD	51 09 07	0426	129	537	2.40	100.0	20	11
100.0	31 21.0	117 27.0	BD	51 09 06	1957	125	558	2.24	100.0	53	11
100.0	31 01.0	118 07.0	BD	51 09 06	1201	140	544	2.58	100.0	2	6
100.0	30 41.0	118 47.5	BD	51 09 06	0346	140	533	2.62	100.0	31	3
100.0	30 20.5	119 27.0	BD	51 09 05	2020	140	537	2.61	100.0	32	2

TABLE 1. (cont.)

## CalCOFI Cruise 5109

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
100.0	80.0	30 01.0	120 07.0	BD	51 09 05	1241	138	525	2.62	100.0	12	68
100.0	90.0	29 40.5	120 47.0	BD	51 09 05	0401	135	521	2.59	100.0	170	147
103.0	30.0	31 05.2	116 25.0	BD	51 08 31	2331	44	445	1.00	100.0	44	51
103.0	35.0	30 55.5	116 45.0	BD	51 09 01	0306	137	577	2.36	100.0	59	0
103.0	40.0	30 45.5	117 05.5	BD	51 09 01	0737	129	530	2.43	100.0	14	11
107.0	32.0	30 25.8	116 11.0	BD	51 09 01	2137	137	497	2.76	100.0	204	27
107.0	35.0	30 20.0	116 23.0	BD	51 09 01	1732	141	518	2.72	100.0	11	0
107.0	40.0	30 10.5	116 43.5	BD	51 09 01	1332	137	516	2.65	100.0	45	3
110.0	33.0	29 50.5	115 52.2	BD	51 09 02	0338	58	337	1.71	100.0	30	251
110.0	35.0	29 46.5	116 00.0	BD	51 09 02	0526	137	507	2.71	100.0	16	2
110.0	40.0	29 36.5	116 19.5	BD	51 09 03	1327	143	510	2.80	100.0	5	0
110.0	50.0	29 16.5	116 59.0	BD	51 09 03	2006	130	524	2.48	100.0	64	1
110.0	60.0	28 56.5	117 39.0	BD	51 09 04	0256	139	525	2.65	100.0	80	805
115.0	27.0	29 11.0	114 55.0	BD	51 09 02	1423	64	412	1.55	100.0	25	427
115.0	30.0	29 05.0	115 08.0	BD	51 09 02	1658	62	446	1.39	100.0	162	226
115.0	35.0	28 55.0	115 27.5	BD	51 09 02	2026	131	485	2.71	100.0	198	46
115.0	40.0	28 45.0	115 47.0	BD	51 09 03	0131	121	535	2.26	100.0	22	6
120.0	25.0	28 03.0	114 15.0	CR	51 08 30	1908	45	262	1.89	100.0	118	553
120.0	30.0	28 13.0	114 34.2	CR	51 08 30	2130	70	398	1.90	100.0	169	812
120.0	35.0	28 02.0	114 54.0	CR	51 08 31	0027	63	415	1.64	100.0	149	167
120.0	45.0	27 42.5	115 33.0	CR	51 08 31	0505	140	490	3.03	100.0	20	20
120.0	60.0	27 13.5	116 31.5	CR	51 08 31	1514	132	497	2.77	100.0	29	11
120.0	70.0	26 52.5	117 14.0	CR	51 08 31	1955	138	505	2.81	100.0	111	31
120.0	80.0	26 32.0	117 56.0	CR	51 09 01	0221	138	438	3.21	100.0	314	97
120.0	90.0	26 11.0	118 38.0	CR	51 09 01	0645	137	492	2.77	100.0	25	39
123.0	37.0	27 24.0	114 40.0	CR	51 09 11	2324	52	220	2.35	100.0	30	206
123.0	40.0	27 19.3	114 49.0	CR	51 09 11	2138	87	271	3.21	100.0	10	54
127.0	40.0	26 55.5	114 06.0	CR	51 09 11	1247	63	393	1.60	100.0	83	44
130.0	30.0	26 44.0	114 29.0	CR	51 09 11	1636	152	429	3.55	100.0	3	2
130.0	40.0	26 29.0	113 29.0	CR	51 09 03	0003	83	388	1.97	100.0	47	531
130.0	50.0	25 51.0	114 45.5	CR	51 09 03	1731	143	411	3.32	100.0	11	5
130.0	60.0	25 23.0	115 25.0	CR	51 09 03	1317	145	432	3.23	100.0	14	112
130.0	70.0	25 03.0	115 13.0	CR	51 09 03	0440	142	435	3.17	100.0	25	31
133.0	25.0	26 04.5	112 48.0	CR	51 09 03	0028	139	489	2.81	100.0	49	28
133.0	30.0	25 54.5	113 07.5	CR	51 09 03	2018	61	378	1.48	100.0	458	708
137.0	23.0	25 34.0	112 18.6	CR	51 09 04	0618	119	419	2.57	100.0	35	0
137.0	30.0	25 21.0	112 43.5	CR	51 09 04	0332	45	347	1.28	25.0	132	1875
140.0	30.0	24 45.5	112 24.0	CR	51 09 04	1137	132	486	2.72	100.0	161	0
140.0	35.0	24 36.0	112 43.0	CR	51 09 04	1351	87	454	1.92	50.0	183	443
140.0	40.0	24 27.0	113 00.0	CR	51 09 04	1716	132	501	2.64	100.0	24	11
140.0	50.0	24 05.0	113 40.0	CR	51 09 04	2316	129	546	2.35	100.0	9	52
140.0	60.0	23 45.0	114 17.0	CR	51 09 05	0630	143	515	2.77	100.0	15	1
140.0	70.0	23 27.0	114 58.0	CR	51 09 05	1036	133	520	2.56	100.0	32	14

TABLE 1. (cont.)

CalCOFI Cruise 5109												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
143.0	30.0	24 11.5	112 03.0	CR	51 09 09	2107	105	303	3.46	100.0	41	3
143.0	35.0	24 01.5	112 22.5	CR	51 09 09	1711	137	494	2.78	100.0	13	4
147.0	20.0	23 56.0	111 04.0	CR	51 09 09	0657	102	410	2.49	100.0	53	52
147.0	25.0	23 47.0	111 23.0	CR	51 09 09	0911	70	471	1.48	100.0	17	11
147.0	30.0	23 36.0	111 41.5	CR	51 09 09	1206	136	504	2.70	100.0	18	23
150.0	19.0	23 24.0	110 39.0	CR	51 09 07	2256	131	506	2.58	100.0	120	673
150.0	25.0	23 12.0	111 02.0	CR	51 09 07	2031	132	527	2.50	100.0	125	24
150.0	30.0	23 01.0	111 19.0	CR	51 09 07	1616	131	546	2.40	100.0	17	61
150.0	40.0	22 35.0	111 58.5	CR	51 09 07	1136	137	497	2.75	100.0	37	4
150.0	50.0	22 17.0	112 33.0	CR	51 09 07	0620	138	537	2.57	100.0	6	6
150.0	60.0	21 59.0	113 09.0	CR	51 09 07	0211	137	484	2.83	100.0	62	16
150.0	70.0	21 40.0	113 48.0	CR	51 09 06	1845	136	543	2.50	100.0	106	6
150.0	80.0	21 20.0	114 28.0	CR	51 09 06	1426	141	483	2.91	100.0	24	11
150.0	90.0	21 00.0	115 05.0	CR	51 09 06	0816	139	509	2.73	100.0	56	10
150.0	100.0	20 39.0	115 43.0	CR	51 09 06	0405	140	549	2.54	100.0	376	3
153.0	16.0	22 55.0	110 07.5	CR	51 09 08	0406	132	532	2.48	100.0	182	258
153.0	20.0	22 48.0	110 22.0	CR	51 09 08	0716	133	489	2.72	100.0	22	22
157.0	10.0	22 33.0	110 00.0	CR	51 09 08	1716	68	543	1.25	100.0	179	61
157.0	20.0	22 13.0	109 23.0	CR	51 09 08	1312	128	494	2.59	100.0	55	669



TABLE 1. (cont.)

## CalCOFI Cruise 5110

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	60.0	37 37.0	123 37.0	BD	51 10 06	0524	145	577	2.51	100.0	5	2
60.0	70.0	37 17.0	124 21.0	BD	51 10 05	2116	124	569	2.18	50.0	5	2
60.0	80.0	36 57.0	125 04.0	BD	51 10 05	1326	139	507	2.75	100.0	6	3
70.0	60.0	35 53.0	122 23.0	BD	51 10 02	1956	132	550	2.40	100.0	5	20
70.0	70.0	35 33.0	123 06.0	BD	51 10 03	0246	139	487	2.80	100.0	5	6
70.0	80.0	35 13.0	123 48.0	BD	51 10 03	0951	132	499	2.64	100.0	0	2
70.0	90.0	34 53.0	124 30.0	BD	51 10 03	1746	129	519	2.48	100.0	4	1
73.0	60.0	35 18.0	121 58.4	BD	51 10 02	1351	142	530	2.68	100.0	0	2
77.0	50.0	35 04.5	120 52.0	BD	51 10 01	2032	104	471	2.20	100.0	50	0
77.0	55.0	34 54.5	121 13.0	BD	51 10 01	2336	133	559	2.36	100.0	17	1
77.0	65.0	34 34.0	121 55.0	BD	51 10 02	0556	139	504	2.76	100.0	4	10
80.0	51.0	34 26.7	120 33.6	PT	51 09 28	1046	66	424	1.56	100.0	19	12
80.0	55.0	34 19.0	120 49.3	PT	51 09 28	1321	110	595	1.86	100.0	11	9
80.0	60.0	34 08.3	121 11.0	PT	51 09 28	1646	124	538	2.30	100.0	3	6
80.0	70.0	33 48.5	121 49.0	PT	51 09 28	2310	128	644	1.99	100.0	3	6
80.0	80.0	33 25.5	122 29.0	PT	51 09 29	0540	120	684	1.75	100.0	2	0
80.0	90.0	33 12.0	123 11.5	PT	51 09 29	1201	128	585	2.18	100.0	5	8
83.0	55.0	32 49.5	123 54.2	PT	51 09 28	1832	125	549	2.27	100.0	67	125
83.0	60.0	33 41.3	120 27.0	PT	51 09 28	0347	127	653	1.95	100.0	4	13
85.0	38.0	33 33.8	120 44.4	PT	51 09 27	2302	128	588	2.18	100.0	6	4
85.0	40.0	34 00.6	119 03.9	PT	51 09 27	0523	63	550	1.14	100.0	25	9
85.0	50.0	33 57.9	119 10.7	PT	51 09 27	0656	137	605	2.26	100.0	33	0
85.0	60.0	33 40.4	119 51.1	PT	51 09 27	1306	126	621	2.02	100.0	2	2
85.0	70.0	33 28.2	117 46.0	PT	51 09 27	1919	138	689	2.00	100.0	3	1
90.0	28.0	33 17.0	117 55.0	PT	51 10 02	2347	72	475	1.51	100.0	267	7
90.0	30.0	33 24.2	117 22.7	PT	51 10 02	2117	131	645	2.03	100.0	71	2
90.0	45.0	32 52.5	118 55.0	PT	51 10 01	1605	145	447	3.24	100.0	16	0
90.0	53.0	32 42.3	119 30.0	PT	51 10 01	1021	135	566	2.39	100.0	4	0
90.0	60.0	32 26.7	119 58.0	PT	51 10 01	0511	130	578	2.26	100.0	10	1
90.0	70.0	32 04.5	120 39.5	PT	51 09 30	1751	120	646	1.96	100.0	16	3
93.0	27.0	32 56.3	117 19.6	PT	51 10 03	0537	135	535	2.53	100.0	30	3
93.0	30.0	31 50.4	117 30.5	PT	51 10 03	0811	137	533	2.58	100.0	42	0
93.0	40.0	32 29.2	118 09.7	PT	51 10 03	1447	132	557	2.36	100.0	1	3
93.0	50.0	32 07.8	118 04.0	PT	51 10 03	2201	157	513	3.06	100.0	19	1
97.0	30.0	32 15.5	117 09.2	PT	51 10 04	1834	32	325	0.99	100.0	212	273
97.0	32.0	32 12.2	117 17.2	PT	51 10 04	1637	142	536	2.65	100.0	3	2
97.0	40.0	31 55.5	117 50.0	PT	51 10 04	1122	142	518	2.75	100.0	1	1
97.0	50.0	31 35.5	118 30.5	PT	51 10 04	0445	153	573	2.68	100.0	8	1
100.0	29.0	31 41.8	116 42.7	PT	51 10 05	0012	65	542	1.20	100.0	8	165
100.0	30.0	31 40.5	116 46.6	PT	51 10 05	0134	131	591	2.32	100.0	10	82
100.0	40.0	31 21.0	117 27.0	PT	51 10 05	0732	131	562	2.48	100.0	91	13
100.0	50.0	31 02.3	118 07.0	PT	51 10 05	1354	140	566	2.48	100.0	8	8
100.0	60.0	30 42.9	118 45.5	PT	51 10 05	2030	132	605	2.19	100.0	261	284

TABLE 1. (cont.)

CalCOFI Cruise 5110												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
100.0	70.0	30 24.4	119 24.1	PT	51 10 06	0302	133	495	2.69	100.0	44	185
100.0	80.0	30 05.1	120 03.5	PT	51 10 06	1017	134	493	2.72	100.0	20	163
100.0	90.0	29 41.1	120 47.0	PT	51 10 06	1716	128	609	2.09	100.0	5	67
103.0	30.0	31 05.0	116 25.0	CR	51 10 08	1448	53	332	1.61	100.0	2	65
103.0	35.0	30 54.5	116 45.5	CR	51 10 08	1221	133	499	2.67	100.0	17	3
103.0	40.0	30 45.5	117 05.5	CR	51 10 08	0924	131	506	2.60	100.0	24	16
107.0	32.0	30 25.5	116 12.0	CR	51 10 07	2257	141	467	3.01	100.0	116	11
107.0	35.0	30 20.0	116 23.5	CR	51 10 08	0416	138	517	2.67	100.0	40	0
107.0	40.0	30 08.0	116 48.5	CR	51 10 08	0416	137	533	2.57	100.0	30	37
110.0	33.0	29 49.5	115 52.0	CR	51 10 07	1743	52	353	1.47	100.0	33	68
110.0	35.0	29 47.0	115 57.5	CR	51 10 07	1552	134	468	2.86	100.0	25	30
110.0	40.0	29 36.0	116 22.0	CR	51 10 07	1226	119	564	2.11	100.0	18	3
110.0	50.0	29 13.0	117 06.0	CR	51 10 07	0636	142	480	2.97	100.0	20	2
110.0	60.0	28 53.5	117 45.5	CR	51 10 07	0121	139	502	2.77	100.0	131	6
115.0	27.0	29 12.0	115 03.0	CR	51 10 06	0548	64	410	1.57	100.0	22	186
115.0	30.0	29 08.0	115 11.0	CR	51 10 06	0708	61	430	1.41	100.0	9	463
115.0	35.0	28 55.0	115 27.5	CR	51 10 06	1031	136	475	2.86	100.0	45	2312
115.0	40.0	28 45.0	115 47.0	CR	51 10 06	1356	138	482	2.86	100.0	12	36
120.0	25.0	28 23.0	114 15.0	CR	51 10 05	2239	57	263	2.18	100.0	35	150
120.0	30.0	28 13.0	114 34.0	CR	51 10 05	2153	68	420	1.62	100.0	85	254
120.0	35.0	28 04.0	114 54.0	CR	51 10 05	1718	58	354	1.63	100.0	13	222
120.0	45.0	27 40.5	115 34.0	CR	51 10 05	1226	143	516	2.77	50.0	2	4
120.0	50.0	27 31.0	115 52.5	CR	51 10 05	0811	141	497	2.84	100.0	19	3
120.0	60.0	27 13.0	116 32.0	CR	51 10 05	0246	141	513	2.76	100.0	135	1
120.0	70.0	26 52.5	117 10.0	CR	51 10 04	1936	134	512	2.62	50.0	207	40
120.0	80.0	26 30.5	117 48.5	CR	51 10 04	1501	138	516	2.68	100.0	28	39
120.0	90.0	26 11.0	118 27.5	CR	51 10 04	0947	143	468	3.04	100.0	222	63
123.0	37.0	27 24.0	114 39.5	CR	51 09 30	0659	52	399	1.30	100.0	12	159
123.0	40.0	27 19.0	114 52.0	CR	51 09 30	0901	137	506	2.71	100.0	14	50
123.0	50.0	26 58.0	115 30.5	CR	51 09 30	1556	135	530	2.55	50.0	4	5
127.0	34.0	26 55.5	114 06.0	CR	51 10 01	0703	54	372	1.44	100.0	44	65
127.0	40.0	26 45.0	114 30.0	CR	51 10 01	0251	141	527	2.68	100.0	81	4
127.0	50.0	26 24.0	115 07.5	CR	51 09 30	2241	140	509	2.74	100.0	89	3
130.0	30.0	26 29.0	113 29.0	CR	51 10 02	1818	59	295	2.01	100.0	55	42
130.0	35.0	26 24.0	113 49.0	CR	51 10 02	2131	142	422	3.36	100.0	54	12
130.0	40.0	26 16.0	114 10.0	CR	51 10 03	0116	154	491	3.14	100.0	270	4
130.0	50.0	25 55.0	114 48.5	CR	51 10 03	0706	128	505	2.54	50.0	4	8
130.0	60.0	25 31.0	115 26.0	CR	51 10 03	1231	140	507	2.76	100.0	12	0
130.0	70.0	25 08.0	116 02.0	CR	51 10 03	1756	144	457	3.14	100.0	26	3
133.0	25.0	26 04.5	112 48.5	CR	51 10 02	1318	58	336	1.74	100.0	18	381
133.0	30.0	25 54.0	113 07.5	CR	51 10 02	1007	136	489	2.79	100.0	12	5
137.0	23.0	25 35.0	112 11.5	CR	51 10 02	0048	63	263	2.39	100.0	104	831
137.0	30.0	25 21.0	112 47.0	CR	51 10 02	0521	144	470	3.06	100.0	12	12

TABLE 1. (cont.)

## CalCOFI Cruise 5111

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs	
60.0	55.0	37 48.5	123 16.0	CR	51 11 08	0638	72	381	1.90	100.0	1	6
60.0	60.0	37 37.0	123 37.0	CR	51 11 08	0311	126	501	2.52	100.0	20	22
60.0	70.0	37 17.0	124 21.0	CR	51 11 07	2111	146	483	3.22	50.0	3	4
60.0	80.0	36 57.0	125 06.0	CR	51 11 07	1527	139	478	2.92	100.0	3	15
60.0	90.0	36 53.0	125 46.0	CR	51 11 07	1111	146	453	3.23	100.0	4	17
60.0	100.0	36 17.0	126 30.0	CR	51 11 07	0356	141	432	3.27	50.0	2	1
63.0	52.0	37 19.0	122 36.0	CR	51 11 09	1410	64	438	1.46	100.0	1	8
63.0	55.0	37 13.0	122 49.0	CR	51 11 09	1557	134	390	3.45	100.0	10	16
67.0	50.0	36 48.0	122 05.5	CR	51 11 10	0643	65	466	1.40	100.0	23	8
67.0	55.0	36 39.0	122 26.0	CR	51 11 10	0402	139	431	3.22	100.0	34	38
67.0	65.0	36 19.0	123 09.0	CR	51 11 09	2236	138	486	2.83	100.0	11	15
70.0	51.0	36 10.7	121 46.0	CR	51 11 10	1125	133	486	2.74	100.0	24	1
70.0	60.0	35 53.0	122 23.0	CR	51 11 10	1557	130	494	2.64	100.0	6	29
70.0	70.0	35 33.0	123 06.0	CR	51 11 10	2131	144	452	3.18	100.0	29	29
70.0	80.0	35 13.0	123 51.0	CR	51 11 11	0252	142	424	3.35	100.0	9	0
73.0	50.0	35 37.0	121 17.0	CR	51 11 11	1813	71	403	1.76	100.0	1	15
73.0	60.0	35 16.0	122 02.0	CR	51 11 11	1312	144	446	3.23	50.0	0	33
77.0	50.0	35 04.5	120 52.0	CR	51 11 11	2303	71	422	1.67	100.0	10	3
77.0	55.0	34 54.5	121 13.0	CR	51 11 12	0154	142	463	3.06	100.0	16	18
77.0	65.0	34 34.0	121 55.0	CR	51 11 12	0655	137	453	3.03	50.0	8	12
80.0	51.0	34 25.5	120 36.0	CR	51 11 04	0521	141	488	2.89	100.0	41	0
80.0	55.0	34 20.0	120 49.5	CR	51 11 04	0953	140	508	2.76	100.0	4	14
80.0	60.0	34 09.0	121 09.0	CR	51 11 04	1347	143	408	3.51	50.0	1	14
80.0	70.0	33 51.0	121 51.0	CR	51 11 05	2156	147	466	3.16	50.0	1	1
80.0	80.0	33 29.0	122 32.0	CR	51 11 05	0657	142	411	3.46	50.0	0	5
80.0	90.0	33 09.0	123 13.0	CR	51 11 05	1224	138	415	3.32	100.0	3	32
80.0	100.0	32 49.0	123 54.0	CR	51 11 05	2111	150	448	3.34	100.0	21	21
83.0	43.0	34 07.7	119 31.0	CR	51 11 03	2056	132	501	3.63	100.0	258	9
85.0	38.0	34 04.0	119 02.3	CR	51 11 03	1743	59	491	1.19	100.0	78	0
85.0	40.0	33 57.0	119 11.6	CR	51 11 03	1552	135	472	2.86	100.0	75	26
85.0	50.0	33 38.0	119 51.0	CR	51 11 03	1021	129	520	2.49	100.0	5	0
85.0	60.0	33 15.5	120 31.0	CR	51 11 03	0510	142	447	3.18	100.0	2	2
90.0	28.0	33 28.5	117 46.5	CR	51 11 01	0326	136	471	2.88	100.0	357	11
90.0	30.0	33 24.5	117 54.5	CR	51 11 01	0634	134	475	2.82	100.0	40	0
90.0	37.0	33 10.5	118 25.2	CR	51 11 01	1035	141	478	2.94	100.0	20	1
90.0	45.0	32 55.0	118 56.0	CR	51 11 02	0624	141	460	3.06	50.0	2	0
90.0	53.0	32 39.5	119 29.5	CR	51 11 02	1121	143	477	3.01	100.0	1	29
90.0	60.0	32 26.0	119 58.0	CR	51 11 02	1527	138	449	3.07	100.0	5	21
90.0	70.0	32 06.5	120 39.0	CR	51 11 02	2050	147	475	3.09	100.0	5	10
93.0	27.0	32 56.0	117 19.0	CR	51 10 31	2210	46	406	1.14	100.0	80	15
93.0	30.0	32 50.0	117 31.0	CR	51 10 31	1941	136	523	2.60	100.0	4	0
93.0	50.0	32 14.0	118 45.5	CR	51 10 31	1141	115	534	2.16	100.0	9	8
97.0	30.0	32 15.0	117 09.0	CR	51 10 30	1800	35	284	1.22	100.0	442	482
97.0	32.0	32 11.0	117 17.0	CR	51 10 30	1946	135	508	2.66	100.0	16	3



TABLE 1. (cont.)

CalCOFI Cruise 5111												
Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
97.0	40.0	31 55.0	117 50.0	CR	51 10 31	0106	123	529	2.33	50.0	16	2
97.0	50.0	31 39.0	118 22.0	CR	51 10 31	0541	130	473	2.75	100.0	10	0
100.0	29.0	31 42.2	116 43.4	BD	51 10 30	0837	68	497	1.37	100.0	12	75
100.0	30.0	31 40.5	116 46.5	BD	51 10 30	1004	135	574	2.34	100.0	18	90
100.0	40.0	31 21.0	117 27.0	BD	51 10 31	2333	138	539	2.55	100.0	17	1
100.0	50.0	31 01.0	118 07.0	BD	51 11 01	0639	132	544	2.43	100.0	5	2
100.0	60.0	30 41.0	118 47.5	BD	51 11 01	1251	142	521	2.72	100.0	53	61
100.0	80.0	30 01.0	120 07.0	BD	51 11 02	0207	143	503	2.85	100.0	15	41
103.0	30.0	31 05.2	116 25.0	BD	51 10 30	1634	54	359	1.51	100.0	4	29
103.0	35.0	30 55.5	116 45.0	BD	51 10 30	1956	120	552	2.18	100.0	36	2
103.0	40.0	30 45.5	117 05.5	BD	51 10 31	1641	134	529	2.53	100.0	7	4
107.0	32.0	30 25.8	116 11.0	BD	51 10 31	0356	137	550	2.48	100.0	7	0
107.0	35.0	30 20.0	116 23.0	BD	51 10 31	0602	140	514	2.72	100.0	14	0
107.0	40.0	30 10.5	116 43.5	BD	51 10 31	1016	139	514	2.70	100.0	14	0
110.0	33.0	29 50.5	115 52.2	BD	51 11 03	2018	54	379	1.42	50.0	422	43
110.0	35.0	29 46.5	116 00.0	BD	51 11 03	1703	136	517	2.63	100.0	13	1
110.0	40.0	29 36.5	116 19.5	BD	51 11 03	1306	142	503	2.82	100.0	6	11
110.0	50.0	29 16.5	116 59.0	BD	51 11 03	0651	140	542	2.58	100.0	11	8
110.0	60.0	28 56.5	117 39.0	BD	51 11 02	2338	134	535	2.50	100.0	52	16
115.0	27.0	29 11.0	114 55.0	BD	51 11 04	0528	68	507	1.33	100.0	100	246
115.0	30.0	29 05.0	115 08.0	BD	51 11 04	0748	70	467	1.49	100.0	8	61
115.0	35.0	28 55.0	115 27.5	BD	51 11 04	1056	133	503	2.64	100.0	3	14
115.0	40.0	28 45.0	115 47.0	BD	51 11 04	1506	140	514	2.73	100.0	1	0
120.0	25.0	28 23.0	114 14.5	BD	51 11 05	0328	55	360	1.53	100.0	338	620
120.0	30.0	28 13.0	114 34.0	BD	51 11 05	0658	70	412	1.68	100.0	91	721
120.0	35.0	28 03.0	114 54.0	BD	51 11 05	1005	52	329	1.59	100.0	19	88
120.0	45.0	27 43.0	115 33.0	BD	51 11 05	1529	147	487	3.02	100.0	5	21
120.0	50.0	27 33.0	115 52.5	BD	51 11 05	2126	135	479	2.82	100.0	14	0
120.0	60.0	27 13.0	116 31.5	BD	51 11 06	0606	135	506	2.66	100.0	34	10
120.0	70.0	26 52.5	117 10.0	BD	51 11 06	1224	141	481	2.94	100.0	15	19
120.0	80.0	26 32.5	117 48.5	BD	51 11 06	1914	138	504	2.74	100.0	33	26
120.0	90.0	26 13.0	118 27.5	BD	51 11 07	0321	141	507	2.78	100.0	79	4
123.0	37.0	27 35.0	114 51.0	BD	51 11 11	0303	55	374	1.48	100.0	407	218
123.0	40.0	27 25.0	114 56.0	BD	51 11 10	2206	135	533	2.53	100.0	120	5
127.0	34.0	26 55.3	114 06.0	BD	51 11 10	1109	53	381	1.40	100.0	135	718
127.0	40.0	26 43.5	114 29.5	BD	51 11 10	1424	143	503	2.84	100.0	7	10
130.0	30.0	26 29.0	113 29.0	BD	51 11 09	0104	55	355	1.55	100.0	28	201
130.0	35.0	26 19.0	113 48.5	BD	51 11 08	2131	136	526	2.60	100.0	59	28
130.0	40.0	26 09.0	114 07.5	BD	51 11 08	1601	140	489	2.87	100.0	17	161
130.0	50.0	25 49.0	114 46.0	BD	51 11 08	0936	134	509	2.63	100.0	9	11
133.0	25.0	26 04.5	112 48.0	BD	51 11 09	0726	55	343	1.60	100.0	4	219
133.0	30.0	25 54.5	113 07.5	BD	51 11 10	0031	140	509	2.76	100.0	20	42
137.0	23.0	25 34.2	112 18.7	BD	51 11 09	1358	57	273	2.07	100.0	9	461
137.0	30.0	25 20.0	112 45.5	BD	51 11 09	1836	138	491	2.80	100.0	16	33

TABLE 1. (cont.)

## CalCOFI Cruise 5112

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
63.0	52.0	37 19.0	YE	51 11 27	1814	31	231	1.32	50.0	3	644
63.0	55.0	37 14.0	YE	51 11 27	2131	106	544	1.95	50.0	20	64
67.0	50.0	36 49.0	YE	51 11 28	1558	58	409	1.42	100.0	4	70
67.0	55.0	36 39.0	YE	51 11 28	1241	140	313	4.48	100.0	1	5
67.0	65.0	36 19.0	YE	51 11 28	0506	123	502	2.44	50.0	3	21
70.0	51.0	36 10.4	YE	51 11 28	2136	140	436	3.21	100.0	33	5
70.0	70.0	35 33.0	YE	51 11 29	0921	119	473	2.51	100.0	1	14
70.0	80.0	35 13.0	YE	51 11 29	1601	130	504	2.58	100.0	0	5
73.0	50.0	35 37.0	YE	51 11 30	1103	48	383	1.25	100.0	5	0
73.0	60.0	35 18.0	YE	51 11 30	0401	115	511	2.25	100.0	5	8
77.0	50.0	35 04.4	YE	51 11 30	1543	66	393	1.69	100.0	14	2
77.0	65.0	34 34.0	YE	51 12 01	0116	146	431	3.39	100.0	19	9
80.0	51.0	34 26.5	YE	51 12 02	2018	50	506	0.99	100.0	105	1
80.0	60.0	34 09.0	YE	51 12 02	1321	126	507	2.48	100.0	4	5
80.0	80.0	33 29.0	YE	51 12 01	2236	128	498	2.56	100.0	9	5
83.0	43.0	34 08.0	YE	51 12 03	0236	121	539	2.24	100.0	67	9
85.0	38.0	34 01.0	YE	51 12 03	0615	125	571	2.18	100.0	214	395
85.0	40.0	33 57.0	YE	51 12 03	0806	91	586	1.55	100.0	19	131
85.0	50.0	33 37.0	YE	51 12 03	1256	149	484	3.07	100.0	2	31
90.0	37.0	33 11.0	YE	51 12 04	1948	117	588	1.98	100.0	6	184
90.0	45.0	32 54.5	YE	51 12 04	1041	91	575	1.59	100.0	12	72
90.0	53.0	32 40.2	YE	51 12 04	0610	108	632	1.70	100.0	41	2
90.0	60.0	32 25.0	YE	51 12 04	0151	108	555	1.94	100.0	26	7
93.0	27.0	32 55.5	HO	51 12 06	1548	64	448	1.44	100.0	8	4
93.0	30.0	32 49.9	HO	51 12 06	1806	138	566	2.44	100.0	62	2
93.0	40.0	32 31.0	HO	51 12 06	2311	129	532	2.43	100.0	52	2
93.0	50.0	32 12.1	HO	51 12 07	0511	139	530	2.63	100.0	12	2
97.0	30.0	32 15.1	HO	51 12 07	0000	32	222	1.46	100.0	110	3
97.0	40.0	31 53.5	HO	51 12 07	1611	139	465	3.00	100.0	11	4
97.0	50.0	31 34.9	HO	51 12 07	1101	131	598	2.19	100.0	1	2
100.0	29.0	31 42.6	HO	51 12 08	0411	133	528	2.52	100.0	29	14
100.0	30.0	31 40.6	HO	51 12 08	0546	125	562	2.22	100.0	60	18
100.0	50.0	31 01.0	HO	51 12 08	1506	136	481	2.83	100.0	4	3
100.0	60.0	30 41.0	HO	51 12 08	2021	135	484	2.79	100.0	10	2
100.0	70.0	30 17.7	HO	51 12 09	0111	134	522	2.56	100.0	67	6
103.0	30.0	31 02.9	HO	51 11 28	0441	39	287	1.35	100.0	61	219
103.0	35.0	30 55.5	HO	51 11 28	0933	46	447	1.04	100.0	12	5
103.0	40.0	30 46.3	HO	51 11 28	1331	132	504	2.62	100.0	4	0
107.0	32.0	30 24.9	HO	51 11 29	0006	133	560	2.38	100.0	25	3
107.0	35.0	30 20.0	HO	51 11 28	2211	131	508	1.58	100.0	6	0
107.0	40.0	30 09.1	HO	51 11 28	1816	133	506	2.64	100.0	7	0
110.0	33.0	29 50.0	HO	51 12 04	0705	69	419	1.65	100.0	32	6
110.0	35.0	29 46.9	HO	51 12 04	0956	127	495	2.57	100.0	22	2
110.0	40.0	29 37.4	HO	51 12 04	1231	130	577	2.25	100.0	5	0

TABLE 1. (cont.)

## CalCOFI Cruise 5112

Line	Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
110.0	50.0	29 17.0	117 01.6	HO	51 12 04	1823	138	482	2.86	100.0	55	2
110.0	60.0	28 58.0	117 37.0	HO	51 12 05	2346	141	508	2.78	100.0	127	22
115.0	27.0	29 10.3	114 58.7	HO	51 12 03	1913	143	370	3.86	100.0	227	210
115.0	30.0	29 07.5	115 09.2	HO	51 12 03	2108	67	460	1.46	100.0	223	103
115.0	35.0	28 55.0	115 27.5	HO	51 12 03	1521	137	468	2.94	100.0	15	115
115.0	40.0	28 45.0	115 43.0	HO	51 12 03	0936	131	515	2.55	100.0	15	32
120.0	25.0	28 19.2	114 16.0	HO	51 12 02	0053	67	400	1.67	100.0	2	43
120.0	30.0	28 13.4	114 34.3	HO	51 12 02	2218	67	404	1.65	100.0	18	269
120.0	35.0	28 03.0	114 54.0	HO	51 12 02	1928	68	396	1.72	100.0	180	363
120.0	45.0	27 41.6	115 31.8	HO	51 12 01	0336	146	462	3.15	100.0	31	16
120.0	50.0	27 30.5	115 45.6	HO	51 12 01	1111	143	463	3.10	100.0	8	4
120.0	60.0	27 13.0	116 31.5	HO	51 11 30	1756	116	535	2.17	100.0	122	7
120.0	70.0	26 52.9	117 10.1	HO	51 11 30	0908	139	546	2.54	100.0	9	13
123.0	37.0	27 26.5	114 38.9	HO	51 12 01	2112	51	238	2.16	100.0	43	75
123.0	40.0	27 19.8	114 50.0	HO	51 12 01	1920	47	352	1.33	100.0	128	0



TABLE 2. Pooled occurrences of fish larvae taken during CalCOFI cruises in 1951.

Rank	Taxon	Occurrences
1	<i>Sebastes</i> spp.	600
2	<i>Triphoturus mexicanus</i>	589
3	<i>Lampanyctus</i> spp.	576
4	<i>Vinciguerrria lucetia</i>	532
5	<i>Citharichthys</i> spp.	428
6	<i>Leuroglossus stilbius</i>	402
7	<i>Engraulis mordax</i>	394
8	<i>Trachurus symmetricus</i>	372
9	<i>Protomyctophum crockeri</i>	370
10	<i>Stenobranchius leucopsarus</i>	369
11	<i>Merluccius productus</i>	351
12	<i>Tarletonbeania crenularis</i>	306
13	<i>Bathylagus wesethi</i>	259
14	<i>Cyclothone</i> spp.	253
15	<i>Diogenichthys laternatus</i>	230
16	Disintegrated fish larva	229
17	<i>Melamphaes</i> spp.	221
18	<i>Symbolophorus californiensis</i>	206
19	Unidentified fish larva	187
20	Paralepididae	169
21	<i>Sardinops sagax</i>	167
22	<i>Bathylagus ochotensis</i>	153
23	<i>Ceratospopelus townsendi</i>	140
24	<i>Icichthys lockingtoni</i>	125
25	Gobiidae	116
25	<i>Diaphus</i> spp.	116
27	<i>Diogenichthys atlanticus</i>	109
28	Myctophidae	99
29	<i>Stomias atriventer</i>	96
30	Labridae	74
31	Ophidiiformes	68
32	<i>Scomber japonicus</i>	59
32	Scopelarchidae	59
34	<i>Argentina sialis</i>	55
34	<i>Chauliodus macouni</i>	55
36	<i>Cololabis saira</i>	53
37	<i>Lyopsetta exilis</i>	51
38	<i>Nansenia crassa</i>	50
39	<i>Gonichthys tenuiculus</i>	49
40	<i>Idiacanthus antrostomus</i>	48
41	<i>Hygophum atratum</i>	47
42	<i>Symphurus</i> spp.	45
43	<i>Synodus</i> spp.	41
44	<i>Lampadena urophaos</i>	39
45	Sternoptychidae	38
46	<i>Chromis punctipinnis</i>	37
47	Anguilliformes	35

TABLE 2. (Cont.)

Rank	Taxon	Occurrences
48	Trachipteridae	32
49	<i>Myctophum nitidulum</i>	30
50	<i>Nansenia candida</i>	29
50	<i>Hygophum</i> spp.	29
50	<i>Tetragonurus cuvieri</i>	29
53	<i>Microstomus pacificus</i>	28
54	<i>Etrumeus acuminatus</i>	25
55	Cottidae	24
55	<i>Sebastolobus</i> spp.	24
55	<i>Prionotus</i> spp.	24
55	Chiasmodontidae	24
59	Trichiuridae	23
60	<i>Microstoma microstoma</i>	21
61	Serranidae	20
61	<i>Tactostoma macropus</i>	20
63	<i>Loweina rara</i>	19
64	<i>Hypsoblennius</i> spp.	18
64	<i>Paralichthys californicus</i>	18
66	<i>Hygophum reinhardtii</i>	17
66	<i>Ophidion scrippsae</i>	17
66	<i>Pleuronichthys coenosus</i>	17
69	<i>Ichthyococcus</i> spp.	16
69	<i>Notoscopelus resplendens</i>	16
69	<i>Aristostomias scintillans</i>	16
72	<i>Electrona rissoi</i>	15
72	Carangidae	15
74	<i>Peprilus simillimus</i>	14
74	<i>Sphyraena argentea</i>	14
74	<i>Pleuronichthys</i> spp.	14
77	<i>Hippoglossina stomata</i>	13
78	Sciaenidae	12
78	<i>Bathylagus pacificus</i>	12
78	<i>Glyptocephalus zachirus</i>	12
81	Scorpaenidae	10
81	<i>Diogenichthys</i> spp.	10
83	<i>Auxis</i> spp.	9
83	<i>Brosmophycis marginata</i>	9
83	<i>Physiculus</i> spp.	9
83	Pleuronectiformes	9
83	<i>Medialuna californiensis</i>	9
88	<i>Diplophos taenia</i>	8
88	Exocoetidae	8
90	Clinidae	7
91	<i>Scorpaenichthys marmoratus</i>	6
91	<i>Myctophum aurolaternatum</i>	6
91	<i>Chilara taylori</i>	6
94	<i>Notolychnus valdiviae</i>	5
94	<i>Syngnathus</i> spp.	5

TABLE 2. (Cont.)

Rank	Taxon	Occurrences
94	<i>Syacium ovale</i>	5
94	Hemiramphidae	5
94	Macrouridae	5
99	<i>Scopelogadus bispinosus</i>	4
99	<i>Bathophilus</i> spp.	4
99	Cyclopteridae	4
99	<i>Brama</i> spp.	4
99	<i>Pleuronichthys decurrens</i>	4
104	<i>Albula vulpes</i>	3
104	<i>Xystreurys liolepis</i>	3
104	<i>Pleuronichthys verticalis</i>	3
104	Ceratioidei	3
104	<i>Bothus</i> spp.	3
109	Tetraodontidae	2
109	<i>Mugil</i> spp.	2
109	Alepocephalidae	2
109	Carapidae	2
109	Gempylidae	2
109	Atherinidae	2
109	<i>Porichthys</i> spp.	2
109	Agonidae	2
109	<i>Bregmaceros</i> spp.	2
109	Blennioidei	2
119	<i>Hippoglossina</i> spp.	1
119	<i>Anotopterus pharao</i>	1
119	Hexagrammidae	1
119	<i>Poromitra</i> spp.	1
119	<i>Opisthonema</i> spp.	1
119	Apogonidae	1
119	<i>Macroramphosus gracilis</i>	1
119	<i>Bathylagus milleri</i>	1
119	Uranoscopidae	1
119	Antennariidae	1
119	Moridae	1
119	<i>Icosteus aenigmaticus</i>	1
119	<i>Scomberomorus</i> spp.	1
119	Balistidae	1
119	<i>Aulopus</i> spp.	1
119	<i>Pleuronichthys ritteri</i>	1



TABLE 3. Pooled numbers of fish larvae taken during CalCOFI cruises in 1951. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	<i>Merluccius productus</i>	62594
2	<i>Engraulis mordax</i>	29372
3	<i>Vinciguerrria lucetia</i>	23308
4	<i>Trachurus symmetricus</i>	19175
5	<i>Sebastes</i> spp.	18495
6	<i>Leuroglossus stilbuis</i>	17696
7	<i>Stenobranchius leucopsarus</i>	16248
8	<i>Triphoturus mexicanus</i>	13067
9	<i>Sardinops sagax</i>	11058
10	<i>Citharichthys</i> spp.	8411
11	<i>Diogenichthys laternatus</i>	3803
12	<i>Lampanyctus</i> spp.	3516
13	<i>Tarletonbeania crenularis</i>	3180
14	<i>Bathylagus wesethi</i>	2578
15	Unidentified fish larva	2196
16	<i>Diaphus</i> spp.	2048
17	Disintegrated fish larva	1778
18	<i>Cyclothone</i> spp.	1547
19	<i>Protomyctophum crockeri</i>	1524
20	<i>Synodus</i> spp.	1341
21	<i>Symbolophorus californiensis</i>	1168
22	<i>Ceratoscopelus townsendi</i>	1083
23	<i>Bathylagus ochotensis</i>	1070
24	<i>Scomber japonicus</i>	1020
25	Ophidiiformes	1012
26	<i>Symphurus</i> spp.	908
27	<i>Icichthys lockingtoni</i>	879
28	<i>Prionotus</i> spp.	867
29	<i>Melamphaes</i> spp.	723
30	Paralepididae	592
31	<i>Diogenichthys atlanticus</i>	585
32	Gobiidae	465
33	<i>Etrumeus acuminatus</i>	423
34	Labridae	391
35	Myctophidae	350
36	<i>Stomias atriventer</i>	342
37	Carangidae	322
38	<i>Argentina sialis</i>	310
39	<i>Chromis punctipinnis</i>	299
40	Serranidae	197
41	<i>Opisthonema</i> spp.	195
42	Scopelarchidae	188
43	<i>Ophidion scrippsae</i>	176
44	<i>Lyopsetta exilis</i>	172
45	Anguilliformes	169

TABLE 3. (Cont.)

Rank	Taxon	Count
46	<i>Idiacanthus antrostomus</i>	158
47	<i>Hygophum atratum</i>	154
48	<i>Cololabis saira</i>	151
49	<i>Lampadena urophaos</i>	147
50	<i>Nansenia crassa</i>	146
51	<i>Gonichthys tenuiculus</i>	143
52	<i>Chauliodus macouni</i>	137
53	<i>Sphyraena argentea</i>	119
54	<i>Tetragonurus cuvieri</i>	117
55	Cottidae	104
56	<i>Microstomus pacificus</i>	102
57	Sternoptychidae	101
58	<i>Tactostoma macropus</i>	97
59	Trachipteridae	95
60	<i>Paralichthys californicus</i>	94
61	<i>Auxis</i> spp.	93
62	<i>Bathylagus pacificus</i>	92
63	<i>Notoscopelus resplendens</i>	91
64	<i>Nansenia candida</i>	90
65	<i>Hygophum</i> spp.	84
66	Trichiuridae	79
67	<i>Physiculus</i> spp.	77
68	<i>Sebastolobus</i> spp.	72
69	<i>Microstoma microstoma</i>	69
70	<i>Myctophum nitidulum</i>	67
71	Sciaenidae	66
72	Chiasmodontidae	61
73	<i>Peprilus simillimus</i>	59
74	<i>Diogenichthys</i> spp.	57
75	<i>Glyptocephalus zachirus</i>	54
76	<i>Pleuronichthys</i> spp.	52
77	Exocoetidae	50
78	<i>Hypsoblennius</i> spp.	47
79	<i>Hygophum reinhardtii</i>	44
79	<i>Electrona rissoi</i>	44
81	<i>Loweina rara</i>	43
82	<i>Hippoglossina stomata</i>	38
82	<i>Ichthyococcus</i> spp.	38
84	<i>Pleuronichthys coenosus</i>	36
84	Scorpaenidae	36
86	<i>Aristostomias scintillans</i>	31
87	Moridae	29
88	<i>Diplophos taenia</i>	28
88	<i>Myctophum aurolaternatum</i>	28
90	Pleuronectiformes	26
91	<i>Brosmophycis marginata</i>	23
91	Clinidae	23
93	Hemiramphidae	20

TABLE 3. (Cont.)

Rank	Taxon	Count
94	<i>Medialuna californiensis</i>	19
95	<i>Syngnathus</i> spp.	18
96	<i>Albula vulpes</i>	17
97	<i>Syacium ovale</i>	15
97	<i>Brama</i> spp.	15
99	<i>Chilara taylori</i>	14
99	<i>Scorpaenichthys marmoratus</i>	14
101	<i>Bathophilus</i> spp.	12
101	<i>Notolychnus valdiviae</i>	12
103	Macrouridae	11
104	<i>Xystreurys liolepis</i>	10
105	<i>Scopelogadus bispinosus</i>	9
106	<i>Bothus</i> spp.	8
106	Cyclopteridae	8
106	<i>Pleuronichthys decurrens</i>	8
109	Ceratioidei	7
109	<i>Icosteus aenigmaticus</i>	7
111	Carapidae	6
111	Tetraodontidae	6
111	<i>Pleuronichthys verticalis</i>	6
114	Atherinidae	5
114	<i>Porichthys</i> spp.	5
116	<i>Mugil</i> spp.	4
116	<i>Bregmaceros</i> spp.	4
116	Blennioidei	4
116	Agonidae	4
116	Gempylidae	4
121	<i>Scomberomorus</i> spp.	3
121	Antennariidae	3
121	<i>Poromitra</i> spp.	3
121	Uranoscopidae	3
121	Alepocephalidae	3
121	<i>Bathylagus milleri</i>	3
121	<i>Macroramphosus gracilis</i>	3
128	Hexagrammidae	2
128	Apogonidae	2
128	<i>Anotopterus pharao</i>	2
128	<i>Pleuronichthys ritteri</i>	2
128	Balistidae	2
128	<i>Hippoglossina</i> spp.	2
128	<i>Aulopus</i> spp.	2
	Total	260740



TABLE 4. Numbers of fish larvae taken on stations occupied during CalCOFI cruises in 1951. Counts are adjusted for percent of sample sorted and standard haul factor (see text). Average number is given for stations occupied twice during a single month. Unoccupied stations are indicated by a dash.

*Albula vulpes*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	3.4	0.0	-
137.0 23.0	-	-	-	-	-	-	-	0.0	10.2	0.0	0.0	-
143.0 30.0	-	-	0.0	-	-	0.0	-	-	3.5	-	-	-

*Anguilliformes*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 100.0	-	0.0	0.0	1.6	-	0.0	0.0	-	0.0	-	0.0	-
97.0 70.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
103.0 60.0	0.0	-	0.0	2.2	0.0	0.0	-	-	-	-	-	-
110.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	0.0
115.0 35.0	-	-	-	-	-	-	-	0.0	0.0	2.9	0.0	0.0
120.0 70.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	0.0	0.0	-
123.0 37.0	-	-	-	-	-	-	-	0.0	0.0	-	1.5	0.0
123.0 50.0	0.0	1.8	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-
127.0 34.0	-	-	-	-	-	-	-	0.0	0.0	0.0	1.4	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	3.1	0.0	-
130.0 70.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	0.0	0.0	-	-
130.0 80.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-	-
133.0 25.0	-	-	-	-	-	-	-	0.0	1.5	1.7	0.0	-
133.0 30.0	0.0	0.0	0.0	1.6	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	0.0	0.0	0.0	0.0	0.9	0.0	-	0.0	0.0	-	-	-
137.0 23.0	-	-	-	-	-	-	-	0.0	5.1	40.6	2.1	-
137.0 30.0	-	-	-	-	-	-	-	0.0	0.0	9.2	2.8	-
137.0 35.0	-	3.3	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
137.0 50.0	1.7	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
140.0 30.0	-	-	-	-	-	-	-	-	-	-	-	-
140.0 35.0	-	-	0.0	-	-	14.8	-	-	7.7	-	-	-
143.0 30.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	-
147.0 25.0	-	-	0.0	-	-	0.0	-	-	13.8	-	-	-
147.0 30.0	-	-	0.0	-	-	0.0	-	-	1.5	-	-	-
150.0 25.0	-	-	1.4	-	-	0.0	-	-	2.7	-	-	-
150.0 30.0	-	-	0.0	-	-	18.3	-	-	0.0	-	-	-
153.0 20.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-	-
153.0 40.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	-
157.0 10.0	-	-	1.6	-	-	0.0	-	-	0.0	-	-	-
157.0 30.0	-	-	1.5	-	-	0.0	-	-	0.0	-	-	-
	-	-	1.9	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Etrumeus acuminatus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
115.0 27.0	-	-	-	-	-	-	-	1.3	0.0	0.0	0.0	0.0
120.0 30.0	-	-	-	-	-	-	-	33.2	-	0.0	3.4	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	-	0.0	1.6	0.0
123.0 37.0	-	-	-	-	-	-	-	0.0	1.2	-	90.3	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	8.0
127.0 34.0	-	-	-	-	-	-	-	3.3	8.0	1.4	2.8	-
130.0 30.0	-	-	-	-	-	-	-	36.4	0.0	12.1	6.2	-
133.0 25.0	-	-	-	-	-	-	-	2.5	72.5	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	0.0	0.0	-
133.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.5	-	4.8	0.0	-
137.0 23.0	-	-	-	-	-	-	-	3.3	71.7	0.0	0.0	-
137.0 30.0	-	-	-	-	-	-	-	0.0	2.7	0.0	0.0	-
140.0 30.0	-	-	-	-	-	-	-	-	11.5	-	-	-
157.0 30.0	-	-	1.9	-	-	0.0	-	-	-	-	-	-

*Opisthonema* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 30.0	-	-	-	-	-	-	-	194.6	0.0	0.0	0.0	-

*Sardinops sagax*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 120.0	-	-	-	-	-	1.9	0.0	-	-	-	-	-
83.0 55.0	-	0.0	-	0.0	1.4	-	-	-	0.0	-	-	-
83.0 70.0	0.0	-	-	0.0	4.3	-	-	-	-	-	-	-
83.0 80.0	0.0	-	-	0.0	-	3.8	-	-	-	-	-	-
87.0 60.0	0.0	-	-	1.9	0.0	0.0	-	-	-	-	-	-
87.0 80.0	0.0	-	-	69.4	0.0	0.0	-	-	-	-	-	-
87.0 90.0	0.0	-	-	0.0	1.9	0.0	-	-	-	-	-	-
90.0 30.0	0.0	0.0	1.7	0.0	0.0	49.1	0.0	-	-	-	0.0	-
90.0 37.0	0.0	0.0	1.6	0.0	0.0	5.3	19.8	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	64.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	0.0	41.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 70.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	-	0.0	-
93.0 30.0	0.0	0.0	0.0	1.5	0.0	-	0.0	0.0	0.0	0.0	-	0.0
93.0 40.0	0.0	7.0	1.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	1.8	0.0	0.0	-	0.0	-	-	-	-
97.0 32.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	-	-
97.0 40.0	0.0	0.0	1.8	7.6	0.0	17.3	0.0	0.0	0.0	0.0	-	0.0
97.0 50.0	0.0	0.0	0.0	0.0	246.4	57.0	0.0	0.0	0.0	0.0	-	0.0
97.0 60.0	0.0	0.0	0.0	9.0	34.2	1.2	0.0	0.0	-	-	-	-
100.0 30.0	0.0	0.0	1.6	0.0	17.4	21.1	-	0.0	0.0	0.0	-	0.0
100.0 40.0	0.0	1.9	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	-	-

TABLE 4. (cont.)

*Sardinops sagax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	50.0	0.0	0.0	67.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
100.0	60.0	0.0	0.0	0.0	100.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-	0.0
103.0	35.0	-	0.0	0.0	26.4	4.8	-	-	0.0	0.0	0.0	-
103.0	40.0	-	0.0	0.0	85.5	11.6	-	-	0.0	0.0	-	-
103.0	50.0	-	0.0	5.6	0.0	0.0	-	-	-	-	-	-
103.0	60.0	-	0.0	2.2	0.0	0.0	-	-	-	-	-	-
103.0	70.0	-	0.0	1.7	0.0	0.0	-	-	-	-	-	-
103.0	80.0	-	0.0	3.7	0.0	-	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	1.3	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	0.0	1.3	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	0.0	12.7	0.0	0.0	0.0	-	-	-	-	-
110.0	80.0	0.0	0.0	0.0	0.0	6.8	0.0	-	-	-	-	-
113.0	35.0	0.0	11.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	40.0	0.0	-	267.8	0.0	0.0	-	-	-	-	-	-
113.0	50.0	0.0	0.0	16.6	0.0	0.0	-	-	-	-	-	-
113.0	60.0	0.0	5.3	0.0	3.8	265.3	-	-	-	-	-	-
113.0	70.0	0.0	0.0	0.0	6.4	0.0	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	3.8	1.5	0.0	1.3	3.9
115.0	30.0	-	-	-	-	-	-	1.9	2.8	0.0	0.0	10.2
115.0	35.0	-	-	-	-	-	-	0.0	2.7	51.5	0.0	5.9
117.0	40.0	0.0	0.0	4.9	0.0	0.0	-	-	-	-	-	-
117.0	50.0	9.9	2.6	0.0	0.0	0.0	-	-	-	-	-	-
117.0	60.0	0.0	0.0	80.7	17.4	0.0	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	-	-	-	-	-
120.0	30.0	-	-	-	-	-	-	11.4	-	63.2	436.0	0.0
120.0	35.0	11.1	0.0	0.0	84.7	0.0	52.9	77.8	-	19.4	95.8	3.3
120.0	45.0	0.0	437.8	16.9	470.4	1.9	0.0	369.6	-	0.0	17.5	271.8
120.0	50.0	0.0	106.6	69.9	82.7	0.0	0.0	0.0	-	0.0	0.0	28.4
120.0	60.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	-	0.0	1.1	0.0
120.0	70.0	0.0	0.0	25.5	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0	90.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	-
123.0	37.0	-	-	-	-	-	-	0.0	0.0	-	177.6	15.1
123.0	40.0	70.9	242.9	69.2	430.2	-	0.0	0.0	9.0	-	0.0	75.8
123.0	50.0	0.0	0.0	17.3	134.3	-	0.0	0.0	3.2	-	-	-
123.0	60.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0	-	-	-
127.0	34.0	-	-	-	-	-	-	191.9	-	0.0	0.0	-
127.0	40.0	0.0	0.0	412.1	846.7	49.6	0.0	0.0	0.0	0.0	0.0	-
127.0	50.0	0.0	15.7	0.0	7.8	-	0.0	17.0	0.0	-	-	-
130.0	30.0	-	-	-	-	-	-	194.6	0.0	0.0	0.0	-
130.0	35.0	0.0	37.8	473.3	552.0	0.8	-	0.0	-	0.0	0.0	-
130.0	40.0	0.0	0.0	1.7	56.4	0.0	-	-	0.0	0.0	0.0	-
130.0	50.0	0.0	0.0	0.0	12.2	15.3	-	2.3	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.0	-	2.5	0.0	0.0	0.0	-
133.0	25.0	-	-	-	-	-	-	2.5	0.0	0.0	0.0	-
133.0	30.0	0.0	6.2	48.6	32.0	8.3	-	0.0	0.0	0.0	0.0	-



TABLE 4. (cont.)

*Sardinops sagax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0	40.0	0.0	0.0	0.0	275.5	0.0	-	0.0	-	-	-	-
133.0	50.0	0.0	0.0	0.0	34.8	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	0.0	0.0	0.0	3.8	-	-	-	-	-	-
137.0	30.0	-	-	-	-	-	-	2.1	0.0	0.0	0.0	-
137.0	35.0	0.0	4.1	14.2	14.2	2.0	0.0	-	-	-	-	-
137.0	40.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	-	-	-	-
137.0	50.0	0.0	0.0	0.0	13.0	0.0	-	0.0	-	-	-	-
140.0	30.0	-	-	-	-	-	-	11.5	-	-	-	-
140.0	40.0	-	0.0	-	-	1.9	-	0.0	-	-	-	-
143.0	30.0	-	0.0	-	-	1.9	-	0.0	-	-	-	-
143.0	40.0	-	0.0	-	-	53.0	-	-	-	-	-	-
147.0	30.0	-	0.0	-	-	4.0	-	0.0	-	-	-	-
147.0	40.0	-	0.0	-	-	3.9	-	-	-	-	-	-
150.0	25.0	-	0.0	-	-	26.5	-	-	0.0	-	-	-
150.0	30.0	-	2.0	-	-	0.0	-	-	0.0	-	-	-
153.0	20.0	-	0.0	-	-	13.2	-	-	0.0	-	-	-

*Engraulis mordax*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	60.0	-	-	-	-	-	9.2	0.0	-	-	-	-
43.0	42.0	-	-	-	-	-	-	2.7	-	-	-	-
53.0	55.0	-	-	-	-	-	-	2.8	-	-	-	-
53.0	65.0	-	-	-	-	-	-	4.3	-	-	-	-
57.0	64.0	-	-	-	-	-	4.0	-	-	-	-	-
60.0	60.0	0.0	0.0	0.0	0.0	3.7	3.2	14.0	0.0	0.0	2.5	-
60.0	70.0	-	0.0	0.0	0.0	0.0	62.7	0.0	0.0	0.0	0.0	-
60.0	80.0	-	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-
60.0	90.0	-	0.0	0.0	0.0	0.0	3.5	0.0	0.0	-	0.0	-
63.0	55.0	-	-	-	-	-	-	3.1	-	-	2.0	-
63.0	57.0	0.0	0.0	0.0	0.0	0.0	2.1	-	-	-	-	-
63.0	67.0	0.0	0.0	0.0	-	3.4	0.0	-	-	-	-	-
67.0	50.0	-	-	-	-	-	-	41.0	-	-	0.7	-
67.0	55.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	-	-	1.6	-
67.0	65.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	-	-	0.0	-
70.0	51.0	-	-	-	-	-	-	0.0	-	-	3.2	-
70.0	55.0	0.0	0.0	0.0	0.0	0.0	1.6	-	-	-	-	-
70.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
70.0	70.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0	90.0	0.0	0.0	0.0	0.0	0.0	21.1	0.0	-	0.0	-	-
70.0	100.0	-	0.0	0.0	0.0	108.1	1.7	-	-	-	-	-
73.0	51.0	3.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
77.0	50.0	-	-	-	-	-	-	0.8	-	30.8	3.3	-
77.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	-	2.4	3.1	-
77.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	-	0.0	0.0	0.0

TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	51.0	-	-	-	-	-	0.0	-	10.9	-	11.6	42.6
80.0	55.0	14.4	0.0	0.0	0.0	0.0	54.5	-	0.0	-	2.8	-
80.0	60.0	0.0	0.0	0.0	-	0.0	-	6.0	0.0	-	0.0	0.0
83.0	43.0	-	-	-	-	-	-	-	-	-	773.2	40.3
83.0	55.0	0.0	-	18.8	0.0	-	-	-	0.0	-	-	-
83.0	60.0	0.0	-	32.6	0.0	-	-	-	0.0	-	-	-
85.0	38.0	-	-	-	-	-	-	36.4	5.6	-	66.6	361.9
85.0	40.0	-	0.0	-	-	-	218.0	9.5	4.5	-	168.7	0.0
85.0	70.0	-	0.0	-	-	-	-	2.7	-	-	-	-
87.0	35.0	15.8	-	39.8	1117.6	-	-	47.7	-	-	-	-
87.0	40.0	15.5	-	42.2	30.6	-	-	-	-	-	-	-
87.0	50.0	-	-	10.6	1.4	0.0	-	-	-	-	-	-
87.0	60.0	4.2	-	19.0	0.0	0.0	-	-	-	-	-	-
87.0	90.0	0.0	-	47.5	0.0	0.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	64.0	180.2	291.4	748.8	-
90.0	30.0	54.9	23.4	59.9	2.1	77.5	11.0	0.0	4.9	40.6	56.4	-
90.0	37.0	0.0	3.2	8.5	3.6	0.0	46.2	0.0	0.0	16.2	38.2	0.0
90.0	45.0	10.4	5.3	0.0	27.6	0.0	-	0.0	0.0	2.4	0.0	0.0
90.0	53.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	60.0	3.6	0.0	0.0	0.0	0.0	1.8	2.9	0.0	0.0	0.0	0.0
93.0	27.0	-	-	-	-	-	-	1.4	34.8	55.2	-	0.0
93.0	30.0	9.1	11.2	3.1	2.6	-	37.4	0.0	0.0	11.6	-	9.8
93.0	40.0	1.8	0.0	1.4	2.5	0.0	0.0	0.0	0.0	0.0	-	4.9
93.0	50.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	30.0	-	-	-	-	-	-	76.5	2.8	321.8	-	74.5
97.0	32.0	0.0	0.0	45.4	2.0	0.0	0.0	58.9	0.0	0.0	-	-
97.0	40.0	0.0	0.0	230.6	278.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	1.6	6.7	14.7	0.0	0.0	0.0	0.0	-	0.0
97.0	60.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	-	-	-
100.0	29.0	-	-	-	-	-	-	10.1	0.0	7.7	-	52.9
100.0	30.0	146.0	64.8	11.9	10.4	54.9	-	27.0	4.8	0.0	-	117.7
100.0	40.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0	50.0	0.0	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
100.0	110.0	-	-	24.0	0.0	-	-	-	-	-	-	-
103.0	30.0	-	-	-	-	-	-	0.0	-	-	62.1	-
103.0	35.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
103.0	40.0	0.0	0.0	1.7	0.0	0.0	-	-	0.0	3.3	-	-
103.0	50.0	0.0	0.0	15.0	0.0	1.7	-	-	-	0.0	-	-
103.0	60.0	0.0	0.0	8.9	6.3	0.0	-	-	-	-	-	-
103.0	70.0	0.0	0.0	50.7	0.0	0.0	-	-	-	-	-	-
103.0	80.0	0.0	0.0	12.8	0.0	-	-	-	-	-	-	-
105.0	32.0	-	-	-	-	-	-	3.5	-	-	-	-
105.0	35.0	0.0	-	-	-	-	-	73.7	-	-	-	-
105.0	40.0	3.6	-	-	-	-	-	2.7	-	-	-	-
105.0	50.0	1.6	-	-	-	-	-	0.0	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	2.8	36.8	7.1	-

TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	35.0	-	2.7	0.0	21.7	0.0	-	-	0.0	19.0	6.3	-
107.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	2.7	0.0	-
107.0	70.0	0.0	5.1	0.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	0.0	4.6	0.0	-	-	-	-	-	-
110.0	33.0	-	-	-	-	-	-	-	15.4	23.5	1084.9	28.0
110.0	35.0	0.0	2.6	0.0	22.1	0.0	-	0.0	0.0	25.7	18.4	36.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	16.9	0.0	0.0
110.0	40.0	0.0	0.0	0.0	2.0	15.4	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	105.5	0.0	28.1	-	-	-	-	-	-
110.0	70.0	0.0	7.5	0.0	0.0	42.5	0.0	-	-	-	-	-
110.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	19.8	0.0	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	0.0	3.6	0.0	0.0	-	-	-	-	-	-
113.0	35.0	4.4	16.4	0.0	98.7	1.7	-	-	-	-	-	-
113.0	40.0	0.0	-	1.9	0.0	0.0	-	-	-	-	-	-
113.0	50.0	0.0	0.0	0.0	3.4	0.0	-	-	-	-	-	-
113.0	60.0	0.0	21.1	0.0	0.0	174.2	-	-	-	-	-	-
113.0	70.0	0.0	353.3	2.4	6.4	0.0	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	8.8	6.2	18.8	95.8	718.0
115.0	30.0	-	-	-	-	-	-	56.4	19.5	7.0	0.0	102.2
115.0	35.0	-	-	-	-	-	-	3.2	37.9	0.0	0.0	8.8
115.0	40.0	-	-	-	-	-	-	0.0	0.0	2.9	0.0	17.9
115.0	60.0	-	-	-	-	-	-	2.9	-	-	-	-
117.0	35.0	16.4	27.4	33.4	13.0	3.8	-	-	-	-	-	-
117.0	40.0	71.7	164.5	168.5	6.9	0.0	-	-	-	-	-	-
117.0	50.0	7.9	20.8	14.9	3.9	1.9	-	-	-	-	-	-
117.0	60.0	0.0	10.6	89.4	7.9	0.0	-	-	-	-	-	-
117.0	70.0	4.9	115.7	0.0	1.5	0.0	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	60.5	-	4.4	1.5	0.0
120.0	30.0	-	-	-	-	-	-	592.7	-	3.2	0.0	0.0
120.0	35.0	310.8	89.7	129.3	478.1	16.7	6.9	129.6	-	0.0	0.0	5.2
120.0	45.0	23.8	638.4	31.6	11.8	3.8	0.0	0.0	-	0.0	0.0	6.3
120.0	50.0	0.0	88.4	57.0	5.6	0.0	5.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	154.0	207.1	30.9	0.0	30.9	0.0	-	0.0	0.0	-
120.0	70.0	0.0	0.0	32.3	26.5	0.0	0.0	0.0	-	0.0	0.0	-
120.0	80.0	2.0	0.0	82.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	0.0	1.9	0.0	2.4	0.0	0.0	0.0	0.0	0.0	-
123.0	37.0	-	-	-	-	-	-	46.4	5.9	-	146.5	8.6
123.0	40.0	20.8	20.2	32.9	25.3	-	35.3	5.2	1.6	-	5.1	22.6
123.0	50.0	4.4	21.7	247.7	52.2	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	10.4	62.5	20.2	-	0.0	0.0	0.0	-	-	-
127.0	34.0	-	-	-	-	-	-	80.4	0.0	0.0	1.4	-
127.0	40.0	31.5	2.4	54.5	42.3	8.6	0.0	0.0	0.0	0.0	0.0	-
127.0	50.0	0.0	0.0	7.0	6.2	-	153.1	0.0	0.0	-	-	-
127.0	60.0	0.0	0.0	1.8	0.0	-	1.6	0.0	0.0	-	-	-
130.0	35.0	152.9	60.1	20.0	25.8	3.9	-	0.0	-	0.0	0.0	-
130.0	40.0	9.4	184.6	7.0	22.5	0.0	-	0.0	0.0	0.0	0.0	-



TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0	50.0	0.0	0.0	23.0	5.2	16.7	-	0.0	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	3.5	-	0.0	0.0	0.0	0.0	-
133.0	30.0	48.6	388.4	225.2	42.2	4.1	-	2.5	0.0	0.0	0.0	-
133.0	40.0	0.0	0.0	1.8	159.6	0.0	-	14.1	-	-	-	-
133.0	50.0	0.0	1.8	0.0	62.0	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	0.0	1.9	0.0	3.8	-	-	-	-	-	-
137.0	23.0	-	-	-	-	-	-	6.7	5.1	0.0	0.0	-
137.0	35.0	42.1	108.5	26.7	0.0	0.0	1.3	-	-	-	-	-
137.0	40.0	1.6	386.3	10.4	3.7	0.0	0.0	0.0	-	-	-	-
137.0	50.0	1.7	11.9	0.0	9.3	0.0	-	0.0	-	-	-	-
137.0	60.0	4.1	0.0	0.0	0.0	0.0	-	-	-	-	-	-
140.0	30.0	-	-	-	-	-	-	-	38.4	-	-	-
140.0	35.0	-	90.7	-	-	14.8	-	-	2.6	-	-	-
140.0	40.0	-	0.0	-	-	1.9	-	-	0.0	-	-	-
143.0	30.0	-	1.7	-	-	22.8	-	-	0.0	-	-	-
143.0	35.0	-	0.0	-	-	11.5	-	-	0.0	-	-	-
147.0	20.0	-	3.2	-	-	-	-	-	0.0	-	-	-
147.0	50.0	-	-	-	-	7.4	-	-	-	-	-	-
150.0	50.0	-	1.9	-	-	0.0	-	-	0.0	-	-	-

*Alepocephalidae*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0	35.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	-	0.0	0.0	-

*Argentina sialis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	43.0	-	-	-	-	-	-	-	-	-	3.6	0.0
87.0	40.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
90.0	30.0	0.0	3.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
97.0	32.0	3.5	3.4	2.8	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0	30.0	0.0	1.9	5.1	1.7	8.4	-	0.0	0.0	0.0	0.0	1.6
110.0	33.0	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0
110.0	35.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	-
110.0	70.0	0.0	0.0	0.0	0.0	2.2	-	-	-	-	-	-
113.0	35.0	0.0	0.0	2.4	0.0	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	0.0	0.0	4.0	-	-	-	-	-	-
113.0	70.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	0.0
115.0	30.0	-	-	-	-	-	-	3.8	0.0	0.0	0.0	-
117.0	35.0	3.5	18.8	5.3	1.4	9.4	-	-	-	-	-	-
117.0	40.0	3.2	13.2	13.0	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Argentina sialis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 35.0	1.9	0.0	4.6	0.0	5.0	5.0	0.0	0.0	-	0.0	0.0	0.0
120.0 45.0	0.0	0.0	0.0	4.2	3.4	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0 50.0	0.0	0.0	0.0	1.8	0.0	0.0	11.7	0.0	-	0.0	0.0	0.0
120.0 60.0	0.0	0.0	0.0	2.0	0.0	0.0	4.1	0.0	-	0.0	0.0	-
120.0 70.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	-	0.0	0.0	-
123.0 40.0	0.0	0.0	0.0	0.0	4.9	0.0	3.9	0.0	0.0	-	0.0	0.0
123.0 50.0	0.0	1.8	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-
123.0 60.0	0.0	0.0	2.6	0.0	0.0	-	0.0	0.0	-	-	-	-
127.0 40.0	0.0	0.0	0.0	2.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	-
130.0 35.0	0.0	0.0	0.0	4.3	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	4.9	18.9	4.1	-	0.0	0.0	0.0	0.0	-
137.0 35.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	-	-	-	-	-
137.0 40.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-

*Microstoma microstoma*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0 65.0	0.0	-	-	0.0	0.0	0.0	0.0	5.4	-	-	0.0	-
70.0 70.0	0.0	-	-	14.6	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	0.0	7.2	0.0	0.0	-	0.0	-	-
73.0 61.0	0.0	-	-	0.0	0.0	3.6	1.8	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	2.3	-	0.0	0.0	-
77.0 65.0	0.0	-	-	0.0	0.0	0.0	0.0	1.4	-	0.0	0.0	0.0
80.0 80.0	0.0	0.0	0.0	0.0	-	0.0	1.7	0.0	0.0	-	0.0	0.0
85.0 60.0	-	-	0.0	-	-	-	-	2.5	0.0	-	0.0	-
90.0 30.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
90.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 120.0	0.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-	-
93.0 40.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
97.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-
100.0 40.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0 70.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-	-
105.0 50.0	-	1.6	-	-	-	-	-	0.0	-	-	-	-
107.0 35.0	-	-	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-

*Nansenia candida*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 70.0	-	-	-	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	-
60.0 80.0	-	-	-	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 90.0	-	-	-	0.0	0.0	1.8	0.0	0.0	0.0	-	0.0	-

TABLE 4. (cont.)

*Nansenia candida* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 130.0	-	-	-	-	-	2.0	-	-	-	-	-	-
67.0 65.0	0.0	-	-	6.8	0.0	0.0	0.0	0.0	-	-	0.0	-
70.0 90.0	0.0	-	-	0.0	1.8	0.0	0.0	0.0	-	0.0	-	-
70.0 100.0	-	-	-	0.0	3.5	0.0	0.0	-	-	-	-	-
70.0 110.0	-	-	-	1.8	0.0	1.8	0.0	-	-	-	-	-
80.0 60.0	0.0	0.0	0.0	0.0	-	3.0	-	0.0	0.0	-	0.0	0.0
80.0 70.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0 90.0	0.0	0.0	0.0	2.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0 100.0	-	0.0	0.0	1.6	-	0.0	1.7	-	0.0	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	1.6	0.0	-	-	-	-	-
80.0 120.0	-	0.0	0.0	1.8	-	-	-	-	-	-	-	-
80.0 130.0	-	0.0	0.0	5.4	-	-	-	-	-	-	-	-
83.0 80.0	0.0	-	-	1.9	-	0.0	-	-	-	-	-	-
87.0 70.0	0.0	-	-	1.8	0.0	0.0	-	-	-	-	-	-
90.0 53.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 80.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	-	-	-	-
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	-	0.0
93.0 70.0	0.0	0.0	0.0	3.6	0.0	0.0	-	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-
97.0 80.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	-	-	-	-
97.0 90.0	0.0	0.0	0.0	3.5	0.0	3.2	0.0	-	-	-	-	-
100.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	-	-
100.0 70.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0

*Nansenia crassa*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 53.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-
103.0 60.0	0.0	-	0.0	0.0	2.1	1.7	-	-	-	-	-	-
107.0 40.0	0.0	-	0.0	1.8	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0 70.0	0.0	-	0.0	0.0	1.7	0.0	-	-	-	-	-	-
110.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	2.6	0.0
110.0 80.0	0.0	1.9	0.0	0.0	2.0	0.0	0.0	-	-	-	-	-
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0 70.0	0.0	0.0	2.8	0.0	1.9	0.0	0.0	2.8	-	0.0	0.0	-
120.0 80.0	2.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0
123.0 40.0	0.0	1.9	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
123.0 50.0	0.0	0.0	0.0	3.8	1.3	-	1.8	0.0	0.0	-	-	-
123.0 60.0	0.0	0.0	0.0	1.7	1.0	-	0.0	0.0	-	-	-	-
123.0 70.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
127.0 40.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	-	-	-	-
127.0 50.0	0.0	0.0	0.0	2.3	0.0	-	0.0	2.4	0.0	-	-	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	0.0	-
130.0 80.0	0.0	1.7	0.0	0.0	1.8	0.0	-	-	-	-	-	-



TABLE 4. (cont.)

*Nansenia crassa* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0 30.0	0.0	0.0	0.0	3.2	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	0.0	3.7	15.1	0.0	0.9	0.0	-	0.0	-	-	-	-
133.0 50.0	1.4	1.8	0.0	0.0	1.0	0.0	-	0.0	-	-	-	-
133.0 60.0	1.6	1.6	3.5	0.0	0.0	0.0	-	-	-	-	-	-
137.0 35.0	0.0	11.7	6.1	0.0	0.0	2.0	0.0	-	-	-	-	-
137.0 40.0	1.6	3.3	5.2	0.0	0.0	0.0	0.0	0.0	-	-	-	-
137.0 50.0	0.0	0.0	2.2	0.0	0.0	0.0	-	0.0	-	-	-	-
137.0 60.0	0.0	1.8	0.0	1.9	0.0	0.0	-	-	2.5	-	-	-
147.0 20.0	-	-	0.0	-	-	-	-	-	0.0	-	-	-
150.0 60.0	-	-	1.8	-	-	0.0	-	-	-	-	-	-

*Bathylagus milleri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	-

*Bathylagus ochotensis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 60.0	-	-	-	-	-	-	9.2	0.0	-	-	-	-
47.0 50.0	-	-	-	-	-	-	-	2.4	-	-	-	-
50.0 90.0	-	-	-	-	-	-	4.8	-	-	-	-	-
53.0 64.0	-	-	-	-	-	-	2.8	-	-	-	-	-
57.0 65.0	-	-	-	-	-	-	-	2.6	-	-	-	-
60.0 60.0	1.8	-	-	0.0	0.0	0.0	1.6	4.7	6.5	0.0	0.0	-
60.0 70.0	-	-	-	0.0	9.3	3.4	0.0	1.9	0.0	4.4	0.0	-
60.0 80.0	-	-	-	56.7	3.7	8.7	3.5	0.0	0.0	0.0	0.0	-
60.0 90.0	-	-	-	0.0	40.0	0.0	0.0	0.0	0.0	-	0.0	-
60.0 100.0	-	-	-	5.2	0.0	0.0	0.0	-	-	-	0.0	-
60.0 110.0	-	-	-	5.6	7.4	0.0	0.0	-	-	-	-	-
60.0 120.0	-	-	-	-	-	0.0	0.0	-	-	-	-	-
61.0 55.0	19.7	-	-	33.4	10.3	6.5	0.0	-	-	-	-	-
63.0 57.0	0.0	-	-	31.2	6.4	25.9	0.0	-	-	-	-	-
63.0 67.0	0.0	-	-	0.0	-	0.0	7.5	-	-	-	-	-
67.0 50.0	-	-	-	-	-	-	-	0.0	-	-	0.7	-
67.0 55.0	0.0	-	-	0.0	6.3	3.6	0.0	0.0	-	-	1.6	-
67.0 65.0	0.0	-	-	116.3	6.8	0.0	0.0	0.0	-	-	0.0	-
70.0 51.0	-	-	-	-	-	-	-	0.0	-	-	1.6	-
70.0 55.0	0.0	-	-	9.4	0.0	0.0	1.6	-	-	-	-	-
70.0 60.0	3.5	-	-	0.0	6.8	3.2	0.0	0.0	-	0.0	0.0	-
70.0 70.0	0.0	-	-	7.3	0.0	0.0	0.0	0.0	-	0.0	1.6	-
70.0 80.0	2.3	-	-	3.9	6.4	7.3	3.5	0.0	-	0.0	0.0	-
70.0 90.0	1.8	-	-	24.6	7.0	10.9	3.0	0.0	-	0.0	-	-
70.0 100.0	-	-	-	18.2	0.0	3.9	1.7	-	-	-	-	-

TABLE 4. (cont.)

*Bathylagus ochotensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	110.0	-	-	0.0	1.7	0.0	0.0	-	-	-	-	-
73.0	51.0	15.0	-	0.0	0.0	0.0	0.0	-	-	-	-	-
73.0	60.0	-	-	-	0.0	-	-	0.0	-	0.0	1.1	-
73.0	61.0	0.0	-	85.9	1.8	3.6	1.8	-	-	-	-	-
77.0	55.0	1.8	-	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
77.0	65.0	0.0	-	0.0	1.8	4.0	4.5	0.0	-	0.0	12.1	17.0
80.0	55.0	0.0	0.0	1.8	14.2	0.0	0.0	-	0.0	-	0.0	-
80.0	60.0	0.0	0.0	0.0	-	0.0	-	3.0	0.0	-	0.0	0.0
80.0	70.0	0.0	0.0	1.7	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0	80.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	2.6
80.0	100.0	29.3	2.8	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	110.0	7.6	0.0	0.0	-	0.0	0.0	-	-	-	-	-
83.0	55.0	0.0	-	3.1	0.8	-	-	-	0.0	-	-	-
83.0	60.0	3.3	-	5.9	0.0	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	3.4	8.5	-	-	-	-	-	-	-
83.0	80.0	0.0	-	3.8	-	0.0	-	-	-	-	-	-
83.0	90.0	-	-	1.6	-	0.0	-	-	-	-	-	-
85.0	80.0	-	0.0	-	-	-	-	2.3	-	-	-	-
87.0	35.0	1.6	0.0	3.3	0.0	-	-	0.0	-	-	-	-
87.0	40.0	7.6	0.0	2.1	0.0	-	-	-	-	-	-	-
87.0	50.0	-	-	2.7	0.0	0.0	-	-	-	-	-	-
87.0	70.0	-	-	0.0	0.0	2.2	-	-	-	-	-	-
87.0	90.0	0.0	-	0.0	5.7	2.5	-	-	-	-	-	-
90.0	30.0	8.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	2.0
90.0	37.0	11.0	1.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	45.0	12.2	0.0	2.5	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	70.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-
90.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0	90.0	0.0	0.0	2.6	7.2	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	-	-	-	-
90.0	110.0	0.0	0.0	0.0	2.0	0.0	0.0	2.8	-	-	-	-
93.0	30.0	5.4	3.2	3.1	0.0	-	0.0	0.0	0.0	0.0	-	0.0
93.0	40.0	1.8	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	-	0.0
97.0	32.0	3.4	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	-	0.0
97.0	40.0	0.0	1.8	1.9	4.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0
97.0	60.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	-	-	-
97.0	70.0	0.0	2.7	0.0	0.0	0.0	2.0	0.0	-	-	-	0.0
100.0	30.0	0.0	1.6	3.4	0.0	0.0	-	0.0	0.0	0.0	-	-
100.0	40.0	0.0	0.0	0.0	1.8	1.9	0.0	0.0	0.0	0.0	-	0.0
100.0	60.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
103.0	40.0	1.9	2.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
103.0	80.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-	-
105.0	40.0	-	3.6	-	-	-	-	0.0	-	-	-	-

TABLE 4. (cont.)

*Bathylagus ochotensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0 40.0	0.0	-	0.0	1.8	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0 50.0	0.0	-	0.0	0.0	0.0	1.6	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	3.3	0.0	0.0	-	-	-	-	-	-
110.0 40.0	0.0	2.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 50.0	0.0	0.0	2.4	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
113.0 60.0	0.0	1.8	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0 60.0	0.0	0.0	0.0	2.2	0.0	0.0	-	-	-	-	-	-

*Bathylagus pacificus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
47.0 55.0	-	-	-	-	-	-	3.2	-	-	-	-	-
60.0 60.0	9.2	-	-	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 70.0	-	-	-	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	-
61.0 55.0	2.8	-	-	0.0	1.7	0.0	0.0	-	-	-	-	-
63.0 57.0	0.0	-	-	39.0	0.0	0.0	0.0	-	-	-	-	-
70.0 60.0	8.8	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0 80.0	0.0	-	-	3.9	0.0	0.0	0.0	0.0	-	0.0	0.0	-
80.0 100.0	-	7.3	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-
87.0 40.0	0.0	3.9	-	0.0	0.0	-	-	-	-	-	-	-
103.0 40.0	0.0	-	0.0	0.0	0.0	2.3	-	-	0.0	0.0	0.0	-

*Bathylagus wesethi*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 90.0	0.0	-	-	0.0	0.0	3.6	0.0	0.0	-	0.0	-	-
70.0 100.0	-	-	-	0.0	3.5	0.0	0.0	-	-	-	-	-
70.0 110.0	-	-	-	0.0	0.0	10.8	0.0	-	-	-	-	-
70.0 120.0	-	-	-	-	-	43.0	0.0	-	-	-	-	-
70.0 130.0	-	-	-	-	-	12.2	-	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
77.0 65.0	0.0	-	-	0.0	0.0	0.0	2.3	1.4	-	0.0	0.0	0.0
80.0 60.0	0.0	0.0	0.0	1.7	-	3.0	-	3.0	0.0	-	0.0	0.0
80.0 70.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0 80.0	0.0	0.0	0.0	0.0	-	3.6	0.0	0.0	0.0	-	0.0	0.0
80.0 90.0	0.0	0.0	0.0	0.0	-	0.0	1.7	-	0.0	-	0.0	-
80.0 100.0	-	0.0	0.0	0.0	-	0.0	8.5	-	7.3	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	32.2	5.2	-	-	-	-	-
80.0 130.0	-	0.0	0.0	1.8	-	-	-	-	-	-	-	-
83.0 55.0	-	0.0	-	3.1	0.0	-	-	-	0.0	-	-	-
83.0 90.0	0.0	-	-	1.6	-	2.0	1.6	-	-	-	0.0	0.0
85.0 40.0	-	-	0.0	-	-	-	-	0.0	0.0	-	-	-
85.0 70.0	-	-	0.0	-	-	-	-	2.7	-	-	-	-
85.0 80.0	-	-	0.0	-	-	-	-	6.8	-	-	-	-



TABLE 4. (cont.)

*Bathylagus wesethi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	60.0	0.0	-	1.9	0.0	0.0	-	-	-	-	-	-
87.0	70.0	0.0	-	1.8	0.0	2.2	-	-	-	-	-	-
87.0	80.0	0.0	-	10.7	1.9	10.5	-	-	-	-	-	-
87.0	90.0	0.0	-	0.0	0.0	5.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	2.6	0.0	0.0	0.0	-
90.0	37.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	0.0	12.5	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
90.0	70.0	0.0	0.0	8.2	5.3	10.0	14.3	0.0	0.0	-	-	-
90.0	80.0	0.0	0.0	1.2	8.3	34.6	11.9	2.9	-	-	-	-
90.0	90.0	0.0	0.0	2.6	0.0	0.0	3.5	5.7	-	-	-	-
90.0	100.0	0.0	3.7	6.8	17.6	1.7	3.4	0.0	-	-	-	-
90.0	110.0	0.0	6.6	7.5	2.0	0.0	0.0	-	-	-	-	-
90.0	120.0	0.0	1.9	22.4	26.3	-	-	-	-	-	-	-
93.0	30.0	0.0	0.0	0.0	0.9	-	0.0	2.5	0.0	0.0	-	0.0
93.0	40.0	0.0	0.0	1.4	0.0	0.0	2.0	0.0	0.0	0.0	-	0.0
93.0	50.0	0.0	0.0	1.8	0.0	0.0	0.0	5.2	2.5	0.0	-	0.0
93.0	60.0	0.0	0.0	0.0	0.0	0.0	-	18.3	-	-	-	-
93.0	70.0	0.0	0.0	19.8	6.0	1.0	-	7.3	-	-	-	-
93.0	80.0	0.0	0.0	0.0	109.6	56.0	34.7	0.0	-	-	-	-
93.0	90.0	3.8	1.9	21.7	65.1	22.0	0.0	-	-	-	-	-
97.0	32.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	-	0.0
97.0	40.0	0.0	12.6	0.0	0.0	0.0	3.8	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	-	-
97.0	60.0	0.0	0.0	7.2	7.6	0.0	1.6	18.4	-	-	-	-
97.0	70.0	0.0	5.3	18.6	3.7	32.3	2.0	2.6	-	-	-	-
97.0	80.0	0.0	0.0	92.8	24.8	65.5	0.0	11.4	-	-	-	-
97.0	90.0	0.0	1.6	54.6	54.0	24.3	16.2	-	-	-	-	-
100.0	40.0	0.0	0.0	27.8	19.9	1.9	1.9	0.0	0.0	0.0	-	-
100.0	50.0	0.0	0.0	0.0	0.0	1.9	1.8	0.0	0.0	2.5	0.0	0.0
100.0	60.0	0.0	0.0	12.8	0.0	0.0	0.0	5.5	2.6	4.4	0.0	2.8
100.0	70.0	0.0	0.0	16.7	3.7	32.4	0.0	1.8	0.0	2.7	-	0.0
100.0	80.0	0.0	5.2	14.9	1.6	75.4	0.0	-	0.0	0.0	0.0	-
100.0	90.0	1.8	0.0	58.5	10.0	24.2	0.0	-	10.4	0.0	-	-
100.0	100.0	0.0	0.0	8.1	5.4	-	6.8	-	-	-	-	-
100.0	110.0	-	-	7.5	0.0	-	-	-	-	-	-	-
100.0	120.0	0.0	-	0.0	6.0	-	-	-	-	-	-	-
103.0	35.0	-	0.0	2.1	4.1	0.0	-	-	9.4	0.0	0.0	-
103.0	50.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-	-	-
103.0	60.0	0.0	13.4	0.0	21.1	18.9	-	-	-	-	-	-
103.0	70.0	0.0	0.0	0.0	36.2	49.7	-	-	-	-	-	-
103.0	80.0	3.5	0.0	3.7	7.7	-	-	-	-	-	-	-
105.0	40.0	-	-	-	-	-	-	5.3	-	-	-	-
105.0	50.0	-	-	-	-	-	-	28.7	-	-	-	-
105.0	60.0	-	-	-	-	-	-	4.7	-	-	-	-
107.0	35.0	-	0.0	0.0	0.0	25.5	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	0.0	1.8	8.3	3.7	-	-	0.0	0.0	0.0	-

TABLE 4. (cont.)

*Bathylagus wesethi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	50.0	0.0	0.0	2.1	3.6	0.0	-	-	-	-	-	-
107.0	60.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-
107.0	70.0	3.5	0.0	30.1	8.6	17.3	-	-	-	-	-	-
107.0	80.0	0.0	0.0	62.3	16.0	5.9	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	7.2	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	5.9	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	80.0	0.0	0.0	19.6	0.0	0.0	-	0.0	2.7	0.0	5.0	0.0
110.0	90.0	0.0	4.7	1.8	16.8	0.0	3.7	-	-	-	-	-
110.0	100.0	0.0	0.0	3.6	0.0	3.0	0.0	-	-	-	-	-
113.0	60.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-	-
113.0	70.0	0.0	0.0	2.4	0.0	1.8	-	-	-	-	-	-
115.0	35.0	-	-	-	-	-	-	3.2	0.0	0.0	0.0	0.0
115.0	50.0	-	-	-	-	-	-	2.5	-	-	-	-
117.0	40.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
117.0	50.0	0.0	2.6	0.0	0.0	5.6	-	-	-	-	-	-
117.0	60.0	0.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-
120.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	4.1	3.6	5.3	2.1	4.2	-	8.3	1.3	-
120.0	70.0	0.0	0.0	0.0	0.0	0.0	6.0	4.2	-	0.0	0.0	-
120.0	80.0	4.0	0.0	0.0	0.0	0.0	10.1	5.0	51.4	2.7	0.0	-
120.0	90.0	1.8	0.0	0.0	0.0	4.9	10.6	8.0	0.0	9.1	2.8	-
120.0	110.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
123.0	40.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	-	0.0	0.0
123.0	50.0	0.0	0.0	5.8	5.0	-	5.5	13.2	0.0	-	-	-
123.0	60.0	0.0	0.0	10.1	17.4	-	3.1	4.8	-	-	-	-
127.0	40.0	0.0	0.0	0.0	0.0	1.7	0.0	3.1	0.0	0.0	0.0	-
127.0	60.0	0.0	0.0	0.0	0.0	-	1.6	0.0	-	-	-	-
130.0	35.0	0.0	0.0	0.0	1.8	0.8	-	5.5	-	0.0	0.0	-
130.0	40.0	0.0	0.0	0.0	4.8	2.7	-	-	0.0	0.0	0.0	-
130.0	50.0	0.0	2.1	0.0	5.2	0.7	-	2.3	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	0.0	-
130.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-
130.0	80.0	0.0	0.0	0.0	0.0	0.0	-	-	-	0.0	-	-
133.0	40.0	0.0	0.0	0.0	1.0	0.0	-	0.0	-	-	-	-
133.0	50.0	0.0	0.0	0.0	1.0	0.0	-	2.5	-	-	-	-
137.0	35.0	0.0	0.0	1.8	0.6	7.9	1.3	-	-	-	-	-
137.0	50.0	0.0	0.0	0.0	1.9	0.0	-	0.0	-	-	-	-
140.0	70.0	-	0.0	-	-	0.0	-	-	2.6	-	-	-
147.0	30.0	-	0.0	-	-	4.0	-	-	0.0	-	-	-
147.0	40.0	-	0.0	-	-	3.9	-	-	-	-	-	-
150.0	25.0	-	15.3	-	-	0.0	-	-	0.0	-	-	-
153.0	16.0	-	-	-	-	-	-	-	5.0	-	-	-
153.0	20.0	-	4.2	-	-	0.0	-	-	2.7	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	2.5	-	-	-
157.0	20.0	-	7.4	-	-	2.0	-	-	15.5	-	-	-

TABLE 4. (cont.)

*Leuroglossus stilbius*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	-	-	8.2	0.0	3.7	1.6	0.0	0.0	0.0	0.0	-
60.0	70.0	-	-	0.0	3.7	3.4	0.0	0.0	0.0	0.0	0.0	-
60.0	80.0	-	-	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0	90.0	-	-	0.0	3.6	0.0	0.0	0.0	0.0	-	0.0	-
61.0	55.0	-	-	2.9	19.3	6.5	0.0	-	-	-	-	-
63.0	57.0	-	-	109.2	110.2	110.2	0.0	-	-	-	-	-
63.0	67.0	-	-	0.0	-	6.8	0.0	-	-	-	-	-
67.0	55.0	-	-	4.0	12.6	0.0	0.0	0.0	-	-	0.0	-
67.0	65.0	-	-	20.5	10.2	11.1	1.8	0.0	-	-	0.0	-
70.0	55.0	-	-	234.0	3.3	15.2	1.6	-	-	-	-	-
70.0	60.0	-	-	13.4	20.3	28.6	0.0	0.0	0.0	0.0	0.0	-
70.0	70.0	-	-	3.6	7.1	0.0	0.0	0.0	-	0.0	1.6	-
70.0	80.0	-	-	19.5	0.0	36.4	0.0	0.0	-	0.0	0.0	-
70.0	90.0	-	-	834.2	0.0	10.9	0.0	0.0	-	0.0	-	-
70.0	100.0	-	-	18.2	0.0	0.0	5.0	-	-	-	-	-
73.0	51.0	-	-	37.3	2.0	0.0	0.0	-	-	-	-	-
73.0	61.0	-	-	121.7	47.5	1.8	1.8	-	-	-	-	-
77.0	55.0	-	-	55.8	31.2	18.0	3.8	2.6	-	0.0	0.0	0.0
77.0	65.0	-	-	0.0	39.8	48.0	4.5	2.8	-	0.0	0.0	-
80.0	55.0	302.4	10.9	66.6	17.8	11.7	2.9	-	0.0	-	0.0	-
80.0	60.0	3.7	0.0	5.1	-	5.9	-	3.0	0.0	-	0.0	-
80.0	70.0	0.0	2.0	1.7	-	56.1	1.9	0.0	0.0	-	0.0	-
80.0	80.0	1.8	0.0	0.0	-	68.8	0.0	0.0	0.0	-	0.0	-
80.0	90.0	0.0	2.4	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0	110.0	1.9	0.0	0.0	-	0.0	0.0	-	-	-	-	-
83.0	43.0	-	-	-	-	-	-	-	-	-	0.0	4.5
83.0	55.0	3.6	-	392.5	30.5	-	-	-	0.0	-	-	-
83.0	60.0	29.5	-	417.4	0.0	-	-	-	0.0	-	-	-
83.0	70.0	-	-	1.7	98.5	-	-	-	-	-	-	-
83.0	80.0	-	-	5.7	-	3.8	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	-	-	-	-	-
85.0	40.0	-	79.6	-	-	-	23.7	5.2	0.0	-	0.0	2.2
85.0	50.0	-	75.2	-	-	-	-	3.2	0.0	-	0.0	0.0
85.0	60.0	-	-	-	-	-	-	0.0	0.0	-	0.0	0.0
85.0	70.0	-	10.1	-	-	-	-	5.0	0.0	-	0.0	-
85.0	80.0	-	-	-	-	-	-	0.0	-	-	-	-
87.0	35.0	86.2	-	59.8	151.1	-	-	2.5	-	-	-	-
87.0	40.0	225.0	-	185.7	223.6	-	-	-	-	-	-	-
87.0	50.0	-	-	58.3	21.6	21.1	-	-	-	-	-	-
87.0	60.0	-	-	522.5	0.0	1.9	-	-	-	-	-	-
87.0	70.0	-	-	1.8	0.0	0.0	-	-	-	-	-	-
87.0	80.0	-	-	26.7	25.1	6.3	-	-	-	-	-	-
87.0	90.0	-	-	15.8	43.7	5.0	-	-	-	-	-	-
90.0	30.0	109.7	55.1	40.9	76.7	52.9	9.2	0.0	0.0	4.1	0.0	0.0
90.0	37.0	259.9	248.0	50.8	23.7	28.2	26.4	0.0	0.0	0.0	0.0	0.0
90.0	45.0	694.3	58.5	1427.5	575.2	46.8	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	56.8	19.6	14.8	8.0	33.8	6.2	2.0	0.0	0.0	0.0	0.0



TABLE 4. (cont.)

*Leuroglossus stilbius* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	60.0	7.3	3.6	1.6	27.4	130.4	12.3	5.8	0.0	0.0	0.0	0.0
90.0	70.0	0.0	82.6	12.1	0.0	1.7	0.0	2.7	0.0	-	0.0	-
90.0	80.0	0.0	0.0	16.4	18.7	0.0	0.0	0.0	-	-	-	-
90.0	90.0	0.0	0.0	3.5	5.4	0.0	0.0	0.0	-	-	-	-
90.0	110.0	0.0	0.0	26.4	3.9	0.0	0.0	-	-	-	-	-
90.0	110.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	-	-	-	-
93.0	30.0	46.0	52.5	92.8	33.7	-	1.8	0.0	0.0	0.0	-	0.0
93.0	40.0	518.6	22.8	115.2	60.2	149.6	6.0	0.0	0.0	0.0	-	0.0
93.0	50.0	1.8	0.0	263.5	325.4	71.0	8.3	0.0	0.0	0.0	-	0.0
93.0	60.0	0.0	10.6	31.9	12.1	4.5	-	0.0	-	-	-	-
93.0	70.0	0.0	0.0	32.4	0.0	1.0	-	0.0	-	-	-	-
93.0	80.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	-	-	-	-
97.0	32.0	0.0	20.6	186.0	18.4	48.8	3.5	4.4	0.0	0.0	-	-
97.0	40.0	0.0	4.9	156.9	132.0	23.0	3.8	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	1.7	76.8	117.7	60.7	0.0	0.0	0.0	0.0	-	0.0
97.0	60.0	0.0	3.6	45.0	53.2	33.6	0.0	0.0	-	-	-	-
97.0	70.0	0.0	0.0	0.0	1.9	0.0	2.0	0.0	-	-	-	-
100.0	30.0	3.1	7.6	37.3	76.6	126.6	-	0.0	0.0	0.0	-	0.0
100.0	40.0	1.9	9.6	11.1	119.5	9.6	0.0	0.0	0.0	0.0	-	0.0
100.0	50.0	0.0	0.0	543.1	16.8	3.7	0.0	0.0	0.0	0.0	0.0	0.0
100.0	60.0	1.9	3.9	28.8	84.4	16.8	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
103.0	35.0	-	-	7.3	26.4	37.0	-	-	0.0	0.0	0.0	-
103.0	40.0	0.0	-	33.5	1.9	30.3	-	-	-	-	-	-
103.0	50.0	0.0	-	8.4	2.0	6.7	-	-	-	-	-	-
103.0	60.0	0.0	-	13.4	8.4	0.0	-	-	-	-	-	-
103.0	70.0	0.0	-	72.0	0.0	0.0	-	-	-	-	-	-
103.0	80.0	0.0	-	42.8	3.9	-	-	-	-	-	-	-
105.0	40.0	-	1.8	-	-	-	-	0.0	-	-	-	-
105.0	70.0	-	5.9	-	-	-	-	-	-	-	-	-
105.0	80.0	-	5.0	-	-	-	-	-	-	-	-	-
107.0	35.0	-	-	5.3	23.6	1.8	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	-	9.9	1.7	0.0	-	-	0.0	0.0	0.0	-
107.0	50.0	0.0	-	0.0	3.6	1.6	-	-	-	-	-	-
107.0	60.0	0.0	-	2.7	0.0	0.0	-	-	-	-	-	-
107.0	70.0	0.0	-	2.6	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	-	0.0	0.0	0.0	-	-	-	-	-	-
110.0	35.0	0.0	2.0	2.6	79.3	5.4	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	2.0	12.6	5.2	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	50.0	0.0	0.0	3.5	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	3.9	43.5	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	0.0	48.5	3.4	58.3	-	0.0	-	-	-	-
110.0	80.0	0.0	0.0	0.0	0.0	8.5	1.9	-	-	-	-	-
113.0	35.0	0.0	16.4	17.1	18.9	1.7	-	-	-	-	-	-
113.0	40.0	0.0	-	22.3	7.5	0.0	-	-	-	-	-	-
113.0	50.0	0.0	0.0	12.9	27.5	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	0.0	26.3	37.6	-	-	-	-	-	-

TABLE 4. (cont.)

*Leuroglossus stilbius* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0	70.0	0.0	41.0	88.4	6.4	1.8	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	0.0	0.0	-	0.0	3.9
117.0	35.0	3.8	34.9	0.0	4.3	1.9	-	-	-	-	-	-
117.0	40.0	1.9	10.3	14.6	10.3	0.0	-	-	-	-	-	-
117.0	50.0	0.0	5.2	3.7	11.7	1.9	-	-	-	-	-	-
117.0	60.0	0.0	13.2	34.9	39.5	7.1	-	-	-	-	-	-
117.0	70.0	0.0	118.4	0.0	7.6	0.0	-	-	-	-	-	-
120.0	45.0	0.0	30.4	4.2	26.9	1.9	0.0	0.0	-	0.0	0.0	0.0
120.0	50.0	0.0	2.6	12.9	1.9	0.0	3.3	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	13.8	22.3	1.8	0.0	0.0	0.0	-	0.0	0.0	-
120.0	70.0	0.0	0.0	30.6	7.6	0.0	0.0	0.0	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	-
123.0	40.0	0.0	0.0	13.8	12.0	-	0.0	0.0	0.0	-	0.0	0.0
123.0	50.0	0.0	0.0	13.4	2.6	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	2.6	3.4	1.9	-	0.0	0.0	-	-	-	-
127.0	40.0	0.0	2.4	26.3	27.0	3.4	0.0	0.0	0.0	0.0	0.0	-
127.0	50.0	0.0	2.6	0.0	0.9	-	0.0	0.0	0.0	-	-	-
130.0	35.0	0.0	0.0	14.3	22.1	1.5	-	-	-	-	-	-
130.0	40.0	0.0	0.0	0.0	0.0	0.9	-	0.0	-	0.0	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0	30.0	0.0	0.0	1.6	11.0	18.6	-	4.7	0.0	0.0	0.0	-
133.0	40.0	0.0	10.8	0.0	33.3	3.6	-	0.0	0.0	-	-	-
133.0	50.0	0.0	0.0	0.0	32.8	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	3.5	0.0	0.0	0.0	-	-	-	-	-	-
137.0	30.0	-	-	-	-	-	-	0.0	0.0	0.0	2.8	-
137.0	35.0	0.0	24.5	3.6	3.9	0.0	5.1	-	-	-	-	-
137.0	40.0	0.0	0.0	0.0	1.9	0.0	1.6	0.0	-	-	-	-
137.0	50.0	0.0	6.6	0.0	1.9	0.0	-	0.0	-	-	-	-
140.0	35.0	-	3.7	-	-	0.0	-	-	0.0	-	-	-
140.0	50.0	-	0.0	-	-	1.8	-	-	0.0	-	-	-
143.0	30.0	-	0.0	-	-	1.9	-	-	0.0	-	-	-
143.0	35.0	-	0.0	-	-	7.6	-	-	0.0	-	-	-
147.0	25.0	-	2.0	-	-	0.0	-	-	0.0	-	-	-
150.0	25.0	-	0.0	-	-	0.0	-	-	2.5	-	-	-

*Cyclothone* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	80.0	-	-	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	-
70.0	80.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.7	-
70.0	90.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	2.5	-	-
70.0	110.0	-	-	0.0	0.0	5.4	0.0	-	-	-	-	-
70.0	120.0	-	-	-	-	18.7	1.6	-	-	-	-	-
70.0	130.0	-	-	-	-	1.7	-	-	-	-	-	-
80.0	80.0	0.0	0.0	0.0	-	0.0	1.7	0.0	1.4	-	0.0	0.0

TABLE 4. (cont.)

*Cyclothone* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	90.0	0.0	0.0	2.0	-	0.0	0.0	-	1.6	-	0.0	-
80.0	100.0	0.0	0.0	0.0	-	0.0	0.0	-	13.6	-	16.7	-
80.0	120.0	1.7	0.0	1.8	-	-	-	-	-	-	-	-
83.0	60.0	0.0	-	0.0	0.0	-	-	-	0.0	-	-	-
83.0	80.0	0.0	-	1.9	-	0.0	-	-	-	-	-	-
83.0	90.0	1.6	-	3.2	-	0.0	-	-	-	-	-	-
85.0	80.0	-	5.0	-	-	-	-	0.0	-	-	-	-
87.0	35.0	1.8	-	0.0	0.0	-	-	0.0	-	-	-	-
87.0	70.0	-	-	0.0	0.0	2.2	-	-	-	-	-	-
87.0	80.0	-	-	1.8	0.0	8.4	-	-	-	-	-	-
87.0	90.0	-	-	0.0	0.0	0.0	-	-	-	-	-	-
90.0	37.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	1.7
90.0	60.0	0.0	0.0	9.7	0.0	0.0	0.0	0.0	0.0	2.0	0.0	3.9
90.0	70.0	0.0	0.0	0.0	0.0	8.3	4.8	0.0	0.0	-	3.1	-
90.0	80.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	12.9	17.8	13.2	0.0	0.0	0.0	-	-	-	-
90.0	110.0	0.0	11.6	6.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0	120.0	2.0	0.0	4.8	17.5	-	-	-	-	-	-	-
93.0	40.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	2.4
93.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	7.9
93.0	60.0	0.0	0.0	0.0	0.0	0.0	-	2.6	0.0	-	-	-
93.0	70.0	0.0	0.0	9.0	0.0	0.0	-	0.0	-	-	-	-
93.0	80.0	11.8	0.0	1.6	13.9	20.0	8.7	0.0	-	-	-	-
93.0	90.0	7.5	0.0	5.4	27.3	44.0	0.0	0.0	-	-	-	-
97.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	-	-
97.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	-	3.0
97.0	50.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	1.4	-	0.0
97.0	60.0	0.0	0.0	1.8	1.9	0.0	0.0	0.0	-	-	-	-
97.0	70.0	0.0	5.3	16.9	1.9	1.9	0.0	2.6	-	-	-	-
97.0	80.0	0.0	0.0	72.0	3.3	5.5	0.0	0.0	-	-	-	-
97.0	90.0	0.0	1.6	1.8	46.8	3.8	0.0	0.0	-	-	-	-
100.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-	-
100.0	60.0	1.9	0.0	6.4	0.0	0.0	0.0	0.0	0.0	4.4	10.9	0.0
100.0	70.0	1.9	0.0	4.6	3.7	18.0	0.0	0.0	0.0	0.0	-	7.7
100.0	80.0	0.0	3.4	4.5	4.9	9.2	0.0	0.0	0.0	0.0	0.0	-
100.0	90.0	18.2	1.6	41.6	1.7	1.9	2.4	-	15.5	0.0	-	-
100.0	100.0	9.4	0.0	4.8	7.2	-	6.8	-	-	-	-	-
100.0	110.0	3.8	-	10.5	23.3	-	-	-	-	-	-	-
100.0	120.0	1.9	-	0.0	12.1	-	-	-	-	-	-	-
103.0	30.0	-	-	-	-	-	-	2.0	-	0.0	0.0	-
103.0	40.0	0.0	0.0	1.7	0.0	0.0	-	-	0.0	0.0	-	-
103.0	50.0	0.0	2.8	0.0	0.0	0.0	-	-	-	-	-	-
103.0	60.0	0.0	3.4	0.0	8.4	1.7	-	-	-	-	-	-
103.0	70.0	6.8	0.0	0.0	4.0	11.0	-	-	-	-	-	-
103.0	80.0	5.3	0.0	0.0	3.9	-	-	-	-	-	-	-



TABLE 4. (cont.)

## Cyclothone spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
105.0	32.0	-	-	-	-	-	-	3.5	-	-	-	-
105.0	80.0	1.7	-	-	-	-	-	-	-	-	-	-
105.0	90.0	5.2	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	0.0	1.6	0.0	10.9	-	-	2.8	0.0	0.0	-
107.0	40.0	-	0.0	7.2	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0	50.0	-	0.0	2.1	0.0	0.0	-	-	0.0	0.0	-	-
107.0	60.0	-	2.7	2.2	0.0	0.0	-	-	-	-	-	-
107.0	70.0	-	0.0	2.0	3.4	2.2	-	-	-	-	-	-
107.0	80.0	-	0.0	3.3	0.0	7.9	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	2.6	0.0	0.0	0.0	0.0
110.0	50.0	0.0	7.1	0.0	0.0	0.0	-	2.6	0.0	3.0	0.0	25.7
110.0	60.0	0.0	0.0	0.0	19.5	0.0	-	0.0	0.0	5.5	2.5	13.9
110.0	70.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
110.0	80.0	0.0	0.0	9.8	0.0	0.0	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	1.8	4.2	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	2.3	0.0	1.9	0.0	0.0	-	-	-	-	-
110.0	110.0	0.0	0.0	0.0	1.9	0.0	-	-	-	-	-	-
113.0	50.0	0.0	0.0	0.0	12.0	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-	-
113.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
115.0	35.0	0.0	-	-	0.0	-	-	0.0	0.0	2.9	0.0	0.0
115.0	50.0	-	-	-	-	-	-	2.5	-	-	-	-
117.0	50.0	0.0	0.0	1.9	2.0	0.0	-	-	-	-	-	-
117.0	60.0	0.0	0.0	2.2	0.0	0.0	-	-	-	-	-	-
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	-	0.0	0.0	0.0
120.0	45.0	0.0	0.0	2.1	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	2.0	0.0	0.0	0.0	2.8	-	2.8	1.3	-
120.0	70.0	0.0	31.2	0.0	0.0	0.0	2.0	1.4	-	68.1	1.3	-
120.0	80.0	0.0	5.4	0.0	0.0	0.0	0.0	7.5	0.0	5.4	0.0	-
120.0	90.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	3.0	2.8	-
120.0	100.0	4.3	0.0	1.9	0.0	0.0	-	-	-	-	-	-
120.0	110.0	6.2	0.0	4.8	0.0	1.8	-	-	-	-	-	-
123.0	37.0	-	-	-	-	-	-	-	-	-	1.5	2.2
123.0	50.0	0.0	0.0	3.8	0.8	-	3.7	0.0	0.0	-	-	-
123.0	60.0	0.0	0.0	0.0	0.0	-	0.0	4.8	-	-	-	-
127.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	-
127.0	50.0	0.0	0.0	0.0	0.9	-	0.0	0.0	2.7	-	-	-
127.0	60.0	8.7	12.9	0.0	0.0	-	1.6	14.6	-	-	-	-
130.0	40.0	0.0	0.0	0.0	0.0	0.9	-	-	3.3	0.0	0.0	-
130.0	50.0	3.5	2.1	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	-
130.0	60.0	1.5	0.0	2.5	1.7	0.9	-	0.0	3.2	0.0	0.0	-
130.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-
133.0	40.0	21.6	0.0	0.0	0.0	0.0	-	-	-	-	-	-
133.0	50.0	1.8	0.0	0.0	0.9	0.0	-	0.0	-	-	-	-
133.0	50.0	4.3	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-

TABLE 4. (cont.)

*Cyclothone* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0 60.0	1.6	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
137.0 35.0	0.0	1.7	0.0	0.0	0.0	4.0	0.0	-	-	-	-	-
137.0 40.0	0.0	1.6	0.0	3.5	0.0	0.0	0.0	0.0	-	-	-	-
137.0 50.0	0.0	0.0	4.4	5.3	0.0	1.0	-	0.0	-	-	-	-
137.0 60.0	0.0	0.0	1.9	0.0	1.8	1.7	-	-	0.0	-	-	-
140.0 50.0	-	-	2.0	-	-	0.0	-	-	-	-	-	-
140.0 80.0	-	-	0.0	-	-	3.7	-	-	-	-	-	-
143.0 40.0	-	-	1.9	-	-	0.0	-	-	-	-	-	-
143.0 60.0	-	-	-	-	-	2.0	-	-	-	-	-	-
150.0 80.0	-	-	1.8	-	-	0.0	-	-	2.9	-	-	-
150.0 90.0	-	-	-	-	-	3.8	-	-	0.0	-	-	-
150.0 100.0	-	-	-	-	-	-	-	-	17.8	-	-	-

*Diplophos taenia*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0 80.0	0.0	-	-	8.9	0.0	0.0	-	-	-	-	-	-
147.0 20.0	-	-	0.0	-	-	-	-	-	5.0	-	-	-
150.0 100.0	-	-	-	-	-	-	-	-	2.5	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	2.5	-	-	-
153.0 20.0	-	-	0.0	-	-	0.0	-	-	2.7	-	-	-
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	2.5	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-

*Ichthyococcus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 100.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-
100.0 70.0	1.9	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
103.0 60.0	0.0	-	0.0	0.0	0.0	1.7	-	-	-	-	-	-
103.0 70.0	0.0	-	0.0	0.0	4.0	0.0	-	-	-	-	-	-
107.0 35.0	-	-	0.0	1.6	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0 40.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.6	-
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0
123.0 60.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	-	-
127.0 60.0	2.2	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	-	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	3.3	-	0.0	-
130.0 80.0	0.0	1.7	0.0	0.0	0.0	1.9	-	-	-	-	-	-
133.0 60.0	1.6	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
137.0 40.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-

TABLE 4. (cont.)

*Vinciguerria lucetia*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	80.0	-	-	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	-
80.0	60.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	5.0
80.0	80.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.8	-	0.0	0.0
80.0	100.0	0.0	0.0	0.0	-	0.0	0.0	-	10.5	-	6.7	-
80.0	120.0	-	0.0	0.0	-	-	-	-	-	-	-	-
83.0	80.0	0.0	-	1.9	-	0.0	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	0.0	0.6	-	0.0	0.0
85.0	60.0	-	-	-	-	-	-	0.0	2.0	-	0.0	-
85.0	70.0	-	-	-	-	-	-	2.7	-	-	-	-
85.0	80.0	-	0.0	-	-	-	-	0.0	-	-	-	-
90.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	-
90.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	2.3	0.0	0.0
90.0	60.0	0.0	0.0	9.7	0.0	0.0	0.0	0.0	27.3	3.9	0.0	19.4
90.0	70.0	0.0	0.0	1.4	0.0	3.3	0.0	0.0	0.0	-	0.0	-
90.0	80.0	0.0	0.0	0.0	4.2	3.6	27.7	23.4	-	-	-	-
90.0	90.0	0.0	0.0	0.0	0.0	2.0	0.0	8.5	-	-	-	-
90.0	100.0	0.0	12.9	11.0	30.8	0.0	1.7	2.8	-	-	-	-
90.0	110.0	0.0	72.6	55.1	0.0	0.0	0.0	-	-	-	-	-
90.0	120.0	0.0	0.0	14.4	94.5	0.0	0.0	-	-	-	-	-
93.0	30.0	0.0	0.0	0.0	0.0	-	-	2.5	0.0	0.0	-	0.0
93.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	12.2
93.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	26.2	17.6	4.6	-	5.3
93.0	60.0	0.0	0.0	0.0	3.5	0.0	-	54.8	-	-	-	-
93.0	70.0	0.0	0.0	9.0	0.0	1.0	-	29.1	-	-	-	-
93.0	80.0	0.0	0.0	1.6	45.2	144.0	82.5	52.8	-	-	-	-
93.0	90.0	1.9	5.7	27.1	33.6	142.0	28.5	-	-	-	-	-
97.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.3	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	8.2	6.8	-	0.0
97.0	60.0	0.0	3.3	10.8	9.5	0.0	0.0	28.9	-	-	-	-
97.0	70.0	0.0	13.3	77.7	1.9	15.2	0.0	47.2	-	-	-	-
97.0	80.0	0.0	4.9	187.2	46.2	18.2	0.0	59.8	-	-	-	-
97.0	90.0	0.0	1.6	19.4	149.4	42.1	8.1	-	-	-	-	-
100.0	40.0	0.0	0.0	3.5	0.0	1.9	0.0	0.0	0.0	0.0	-	-
100.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	60.0	16.7	0.0	14.4	0.0	0.0	0.0	9.9	0.0	14.9	0.0	0.0
100.0	70.0	0.0	0.0	38.0	9.3	0.0	0.0	38.2	21.0	503.7	95.2	5.6
100.0	80.0	0.0	0.0	49.2	0.0	3.6	0.0	0.0	23.5	37.7	-	97.3
100.0	90.0	0.0	3.4	103.2	0.0	62.6	0.0	-	21.0	2.7	22.8	-
100.0	100.0	9.1	4.7	48.3	8.3	3.7	19.2	-	303.0	4.2	-	-
100.0	110.0	11.3	3.3	85.5	41.4	-	224.7	-	-	-	-	-
100.0	120.0	17.1	-	6.0	24.1	-	-	-	-	-	-	-
103.0	30.0	-	-	-	-	-	-	-	-	-	-	-
103.0	35.0	-	0.0	0.0	0.0	0.0	-	5.0	-	0.0	0.0	-
103.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	30.7	5.3	0.0	-
103.0	50.0	0.0	0.0	3.7	5.9	0.0	-	-	14.6	2.6	-	-



TABLE 4. (cont.)

*Vinciguerria lucetia* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	60.0	0.0	0.0	0.0	31.6	6.9	-	-	-	-	-	-
103.0	70.0	0.0	0.0	0.0	2.0	29.4	-	-	-	-	-	-
103.0	80.0	3.5	0.0	0.0	3.9	-	-	-	-	-	-	-
105.0	32.0	-	-	-	-	-	-	8.7	-	-	-	-
105.0	35.0	0.0	-	-	-	-	-	2.5	-	-	-	-
105.0	40.0	1.8	-	-	-	-	-	80.1	-	-	-	-
105.0	50.0	0.0	-	-	-	-	-	17.2	-	-	-	-
105.0	60.0	0.0	-	-	-	-	-	9.4	-	-	-	-
105.0	90.0	3.5	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	0.0	4.8	0.0	25.5	-	-	2.8	3.0	2.4	-
107.0	40.0	0.0	0.0	12.7	1.7	16.7	-	-	5.4	16.0	1.6	-
107.0	50.0	8.0	0.0	2.1	1.8	0.0	-	-	21.2	11.6	10.6	-
107.0	60.0	21.7	-	2.2	0.0	0.0	-	-	-	-	-	-
107.0	70.0	1.7	0.0	4.0	1.7	56.2	-	-	-	-	-	-
107.0	80.0	0.0	2.5	45.9	4.6	21.8	-	-	-	-	-	-
110.0	33.0	-	-	-	-	-	-	-	0.0	0.0	2.8	0.0
110.0	35.0	0.0	0.0	0.0	0.0	7.2	-	-	0.0	0.0	0.0	2.6
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	2.3
110.0	50.0	0.0	1.7	0.0	0.0	0.0	-	-	18.4	20.8	0.0	114.4
110.0	60.0	11.1	0.0	0.0	17.6	0.0	-	-	24.8	160.7	75.0	258.5
110.0	70.0	6.2	0.0	4.2	3.4	0.0	-	-	5.3	-	-	-
110.0	80.0	0.0	0.0	15.7	0.0	0.0	-	-	-	-	-	-
110.0	90.0	12.0	9.0	14.4	19.6	0.0	1.9	-	-	-	-	-
110.0	100.0	5.4	0.0	12.7	62.9	1.5	0.0	-	-	-	-	-
110.0	110.0	1.5	-	34.6	89.8	42.8	-	-	-	-	-	-
113.0	50.0	1.5	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	60.0	13.7	1.8	0.0	0.0	0.0	-	-	-	-	-	-
113.0	70.0	39.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
115.0	30.0	-	-	-	-	-	-	-	-	-	-	-
115.0	35.0	-	-	-	-	-	-	-	-	-	-	-
115.0	40.0	-	-	-	-	-	-	-	-	-	-	-
115.0	50.0	-	-	-	-	-	-	-	-	-	-	-
115.0	60.0	-	-	-	-	-	-	-	-	-	-	-
117.0	50.0	0.0	0.0	1.9	0.0	3.8	-	-	0.0	0.0	0.0	4.4
117.0	60.0	0.0	0.0	0.0	0.0	2.4	-	-	8.1	5.7	2.6	0.0
117.0	70.0	8.1	0.0	2.2	0.0	0.0	-	-	13.6	0.0	0.0	0.0
120.0	30.0	-	-	-	-	-	-	-	-	-	-	-
120.0	45.0	0.0	0.0	2.1	0.0	5.7	-	-	-	-	-	-
120.0	50.0	0.0	0.0	1.8	0.0	38.6	7.8	-	-	-	0.0	0.0
120.0	60.0	0.0	0.0	14.2	0.0	0.0	0.0	-	-	0.0	3.0	44.1
120.0	70.0	2.2	0.0	0.0	1.9	0.0	8.2	-	-	41.4	25.4	0.0
120.0	80.0	37.8	8.2	104.0	0.0	0.0	13.9	-	-	644.5	81.8	-
120.0	90.0	10.5	113.4	113.4	0.0	17.4	6.7	-	-	34.8	13.5	-
120.0	100.0	131.6	13.0	86.8	5.6	0.0	15.9	-	-	617.1	180.7	-
120.0	110.0	164.3	-	92.8	27.5	6.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Vinciguerria lucetia* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
123.0	37.0	-	-	-	-	-	-	0.0	0.0	-	5.9	25.9
123.0	40.0	0.0	0.0	0.0	1.5	-	0.0	5.2	4.1	-	22.8	17.3
123.0	50.0	0.0	0.0	63.4	3.1	-	23.8	112.2	10.2	-	-	-
123.0	60.0	3.0	2.6	8.5	3.9	-	40.8	94.4	-	-	-	-
127.0	34.0	-	-	-	-	-	-	1.6	0.0	2.9	0.0	-
127.0	40.0	6.7	2.4	0.0	0.0	29.1	227.7	0.0	0.0	61.6	0.0	-
127.0	50.0	5.4	2.6	37.3	5.2	-	59.8	9.7	0.0	-	-	-
127.0	60.0	8.5	59.3	3.7	38.5	-	0.0	403.4	71.2	-	-	-
130.0	30.0	-	-	-	-	-	-	0.0	-	2.0	9.3	-
130.0	35.0	5.5	2.4	0.0	0.0	31.0	-	2.8	31.5	3.4	80.6	-
130.0	40.0	26.2	0.0	0.0	0.0	134.5	-	-	6.6	599.7	23.0	-
130.0	50.0	8.9	12.5	48.0	8.7	18.8	-	49.1	12.9	10.2	5.3	-
130.0	60.0	4.4	9.9	32.4	25.5	139.1	-	12.6	63.4	0.0	33.4	-
130.0	70.0	40.3	15.5	29.2	126.0	38.4	-	-	73.1	25.1	-	-
130.0	80.0	10.4	3.9	112.8	313.3	302.4	-	-	-	-	-	-
130.0	90.0	-	-	-	-	117.5	-	-	-	-	-	-
133.0	25.0	-	-	-	-	-	-	2.5	7.4	10.4	0.0	-
133.0	30.0	28.8	0.0	1.6	0.0	6.2	-	0.0	28.3	16.7	11.0	-
133.0	40.0	77.5	0.0	0.0	10.3	0.0	-	28.1	-	-	-	-
133.0	50.0	59.6	0.0	63.2	41.5	13.4	-	55.2	-	-	-	-
133.0	60.0	23.4	15.9	5.7	18.7	112.8	-	-	-	-	-	-
137.0	23.0	-	-	-	-	-	-	3.3	5.1	19.1	0.0	-
137.0	30.0	-	-	-	-	-	-	10.7	372.6	12.2	16.8	-
137.0	35.0	5.5	5.0	5.3	0.6	39.6	1.3	-	-	-	-	-
137.0	40.0	19.6	27.7	60.5	1.9	4.3	68.5	18.1	-	-	-	-
137.0	50.0	58.1	8.5	44.5	37.2	123.8	-	232.3	-	-	-	-
137.0	60.0	41.4	101.5	24.2	15.8	134.2	-	-	-	-	-	-
140.0	35.0	-	0.0	-	-	0.0	-	-	26.4	-	-	-
140.0	40.0	-	4.1	-	-	0.0	-	-	9.4	-	-	-
140.0	50.0	-	4.0	-	-	0.0	-	-	40.6	-	-	-
140.0	60.0	-	13.3	-	-	39.7	-	-	63.7	-	-	-
140.0	70.0	-	5.8	-	-	43.0	-	-	56.3	-	-	-
140.0	80.0	-	2.2	-	-	65.1	-	-	-	-	-	-
140.0	90.0	-	-	-	-	15.3	-	-	-	-	-	-
143.0	30.0	-	0.0	-	-	0.0	-	-	20.8	-	-	-
143.0	35.0	-	0.0	-	-	0.0	-	-	2.8	-	-	-
143.0	40.0	-	3.8	-	-	40.8	-	-	-	-	-	-
143.0	50.0	-	37.9	-	-	39.2	-	-	-	-	-	-
143.0	60.0	-	-	-	-	77.6	-	-	-	-	-	-
147.0	20.0	-	11.1	-	-	-	-	-	54.8	-	-	-
147.0	25.0	-	0.0	-	-	0.0	-	-	11.8	-	-	-
147.0	30.0	-	1.4	-	-	99.5	-	-	21.6	-	-	-
147.0	40.0	-	0.0	-	-	19.4	-	-	-	-	-	-
147.0	50.0	-	-	-	-	14.8	-	-	-	-	-	-
147.0	60.0	-	-	-	-	50.2	-	-	-	-	-	-
150.0	19.0	-	-	-	-	-	-	-	237.4	-	-	-

TABLE 4. (cont.)

*Vinciguerria lucetia* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
150.0	25.0	-	278.0	-	-	41.0	-	-	297.5	-	-	-
150.0	30.0	-	268.7	-	-	0.0	-	-	33.6	-	-	-
150.0	40.0	-	1.7	-	-	92.6	-	-	88.0	-	-	-
150.0	50.0	-	56.4	-	-	14.3	-	-	15.4	-	-	-
150.0	60.0	-	141.2	-	-	77.8	-	-	141.5	-	-	-
150.0	70.0	-	54.0	-	-	64.1	-	-	232.5	-	-	-
150.0	80.0	-	23.7	-	-	39.0	-	-	52.4	-	-	-
150.0	90.0	-	-	-	-	302.7	-	-	139.2	-	-	-
150.0	100.0	-	-	-	-	-	-	-	883.9	-	-	-
153.0	16.0	-	-	-	-	-	-	-	151.3	-	-	-
153.0	20.0	-	97.8	-	-	57.2	-	-	27.2	-	-	-
153.0	30.0	-	0.0	-	-	2.2	-	-	-	-	-	-
153.0	40.0	-	58.5	-	-	69.7	-	-	-	-	-	-
153.0	50.0	-	14.7	-	-	13.5	-	-	-	-	-	-
157.0	10.0	-	24.6	-	-	212.2	-	-	43.8	-	-	-
157.0	20.0	-	16.2	-	-	66.6	-	-	62.2	-	-	-
157.0	30.0	-	228.8	-	-	35.0	-	-	-	-	-	-
157.0	40.0	-	3.3	-	-	190.1	-	-	-	-	-	-
157.0	50.0	-	0.0	-	-	58.5	-	-	-	-	-	-

*Sternoptychidae*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	90.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	-	3.3	-
80.0	110.0	0.0	1.8	0.0	-	0.0	0.0	-	-	-	-	-
87.0	70.0	-	-	0.0	0.0	2.2	-	-	-	-	-	-
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
90.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-	-	-	-
90.0	100.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-
93.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0	80.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	0.0	0.0	4.2	2.0	0.0	0.0	-	-	-	-
97.0	60.0	0.0	1.7	1.8	0.0	0.0	0.0	0.0	-	-	-	-
97.0	90.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	-	2.6
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
100.0	100.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-	-
100.0	110.0	0.0	-	0.0	1.9	-	-	-	-	-	-	-
100.0	120.0	0.0	-	0.0	2.0	-	-	-	0.0	0.0	0.0	-
103.0	40.0	0.0	0.0	0.0	0.0	7.0	-	-	-	-	-	-
103.0	60.0	0.0	0.0	0.0	0.0	1.7	-	-	-	-	-	-
103.0	70.0	0.0	0.0	1.7	0.0	1.8	-	-	-	-	-	-
117.0	50.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	45.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	-
120.0	80.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-

TABLE 4. (cont.)

## Sternoptychidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 100.0	0.0	2.2	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
123.0 40.0	0.0	0.0	10.1	0.0	0.7	-	0.0	0.0	0.0	-	0.0	0.0
123.0 60.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.4	0.0	-	-	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.9	-	-	0.0	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	3.2	0.0	0.0	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.8	-
130.0 70.0	0.0	1.7	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-
130.0 80.0	0.0	0.0	0.0	0.0	0.0	1.9	-	-	0.0	-	-	-
133.0 40.0	0.0	0.0	0.0	0.0	1.0	0.0	-	0.0	-	-	-	-
133.0 50.0	0.0	0.0	0.0	4.1	0.0	0.0	-	0.0	-	-	-	-
137.0 50.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-

*Chauliodus macouni*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 60.0	-	-	-	-	-	-	0.0	5.0	-	-	-	-
40.0 100.0	-	-	-	-	-	-	1.6	-	-	-	-	-
50.0 50.0	-	-	-	-	-	-	2.7	2.6	-	-	-	-
50.0 70.0	-	-	-	-	-	-	2.8	0.0	-	-	-	-
53.0 64.0	-	-	-	-	-	-	4.0	-	-	-	-	-
57.0 64.0	-	-	-	-	-	-	1.6	0.0	0.0	0.0	0.0	-
60.0 60.0	0.0	-	-	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
60.0 70.0	-	-	-	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	-
60.0 80.0	-	-	-	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 100.0	-	-	-	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	-
61.0 55.0	-	-	-	0.0	0.0	3.2	3.3	-	-	-	-	-
67.0 55.0	0.0	-	-	0.0	0.0	3.6	0.0	0.0	-	-	0.0	-
70.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
70.0 70.0	0.0	-	-	0.0	0.0	4.1	0.0	1.3	-	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	1.8	3.6	0.0	0.0	-	2.5	-	-
70.0 100.0	-	-	-	0.0	0.0	0.0	1.7	0.0	-	-	-	-
73.0 51.0	0.0	-	-	0.0	2.0	0.0	0.0	-	-	-	-	-
73.0 61.0	0.0	-	-	0.0	1.8	0.0	0.0	-	-	-	-	-
77.0 55.0	0.0	-	-	3.7	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
77.0 65.0	0.0	-	-	0.0	0.0	4.0	0.0	0.0	-	0.0	0.0	-
80.0 55.0	0.0	0.0	0.0	3.6	0.0	0.0	2.9	-	0.0	-	-	-
80.0 70.0	0.0	0.0	0.0	0.0	-	3.3	0.0	0.0	0.0	-	-	-
80.0 80.0	0.0	0.0	0.0	1.6	-	0.0	0.0	0.0	0.0	-	0.0	2.6
80.0 90.0	0.0	1.8	2.8	0.0	-	0.0	0.0	0.0	0.0	-	3.3	-
80.0 100.0	-	0.0	0.0	1.6	-	1.6	0.0	-	0.0	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	-	-	-
83.0 55.0	-	0.0	-	0.0	0.8	-	-	-	0.0	-	-	-
87.0 40.0	0.0	0.0	-	0.0	0.9	-	-	-	-	-	-	-
87.0 70.0	0.0	-	-	1.8	0.0	0.0	-	-	-	-	-	-
87.0 80.0	0.0	-	-	0.0	0.0	2.1	-	-	-	-	-	-



TABLE 4. (cont.)

*Chaulioidus macouni* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 37.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 45.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	0.0	2.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
90.0 100.0	0.0	0.0	1.8	0.0	0.0	1.7	0.0	0.0	-	-	-	-
97.0 32.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	-	-
97.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.6	-	-	-	-
97.0 70.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
100.0 60.0	0.0	0.0	0.0	1.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.0 80.0	0.0	-	0.0	1.6	0.0	0.0	-	-	-	-	-	-

*Idiacanthus antrostomus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 120.0	-	-	-	-	-	7.5	11.1	-	-	-	-	-
70.0 130.0	-	-	-	-	-	1.7	-	-	-	-	-	-
80.0 100.0	-	0.0	0.0	0.0	-	0.0	1.7	-	7.1	-	13.4	-
83.0 90.0	1.6	-	-	1.6	-	0.0	-	-	-	-	-	-
85.0 80.0	-	-	5.0	-	-	-	-	0.0	-	-	-	-
87.0 70.0	0.0	-	-	0.0	0.0	2.2	-	-	-	-	-	-
90.0 70.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	-	6.2	-
90.0 80.0	0.0	0.0	0.0	0.0	0.0	3.6	4.0	0.0	-	-	-	-
90.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 120.0	0.0	0.0	0.0	0.0	5.3	-	-	-	-	-	-	-
93.0 40.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
93.0 80.0	0.0	0.0	0.0	0.0	1.7	4.0	2.2	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	-	-	-	-
97.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.4	-	0.0
97.0 60.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.8	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	-	-	-	-	-
100.0 40.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.7	2.8
100.0 70.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	2.7	-	0.0
100.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	-	0.0	0.0	-	-
100.0 100.0	1.9	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-
103.0 40.0	0.0	-	2.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
103.0 60.0	1.8	-	3.4	0.0	0.0	0.0	-	-	-	-	-	-
103.0 70.0	3.4	-	0.0	0.0	0.0	0.0	-	-	-	-	-	-
110.0 50.0	0.0	5.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	2.8
110.0 90.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	-	-	-	-	-
113.0 40.0	1.8	0.0	-	0.0	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Idiacanthus antrostomus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0 70.0	1.6	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	1.3	-

<i>Aristostomias scintillans</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 110.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	-	-	-	-	-
97.0 60.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	-	-	-
97.0 70.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
100.0 80.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-
100.0 90.0	0.0	0.0	1.6	1.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-
100.0 100.0	0.0	-	0.0	0.0	1.8	-	0.0	-	-	-	-	-
100.0 110.0	0.0	-	-	1.5	0.0	-	-	-	-	-	-	-
103.0 80.0	0.0	-	0.0	0.0	1.9	-	-	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	-	-	-	-	-
110.0 100.0	0.0	1.7	0.0	0.0	0.0	0.0	-	-	-	-	-	-
110.0 110.0	0.0	-	0.0	0.0	1.9	1.7	-	-	-	-	-	-

*Bathophilus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 130.0	-	-	-	-	-	3.9	-	-	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-
107.0 80.0	-	-	0.0	1.6	0.0	0.0	-	-	-	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	5.0	-	-	-

*Tactostoma macropus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 50.0	-	-	-	-	-	-	0.0	2.3	-	-	-	-
40.0 80.0	-	-	-	-	-	-	0.0	2.1	-	-	-	-
47.0 60.0	-	-	-	-	-	-	0.0	4.9	-	-	-	-
50.0 100.0	-	-	-	-	-	-	9.5	-	-	-	-	-
60.0 80.0	-	-	-	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	0.0	0.0	3.0	0.0	-	-	-	-
70.0 110.0	-	-	-	0.0	0.0	12.6	0.0	-	-	-	-	-
70.0 120.0	-	-	-	-	22.4	12.2	0.0	-	-	-	-	-
70.0 130.0	-	-	-	-	-	0.0	0.0	-	-	-	-	-
80.0 100.0	-	0.0	0.0	0.0	-	0.0	0.0	-	1.1	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	1.6	3.5	-	-	-	-	-

TABLE 4. (cont.)

*Tactostoma macropus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 110.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-
90.0 120.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 100.0	0.0	-	0.0	0.0	3.6	-	0.0	-	-	-	-	-

*Stomias atriventer*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 120.0	-	-	-	-	-	1.9	0.0	-	-	-	-	-
90.0 60.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 100.0	0.0	0.0	5.5	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 110.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-	-
90.0 120.0	0.0	0.0	0.0	3.2	0.0	-	-	-	-	-	-	-
93.0 80.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 40.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0 60.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	-	-	-
97.0 70.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-
100.0 60.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
100.0 70.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
100.0 90.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0 110.0	0.0	-	-	15.0	0.0	-	-	-	-	-	-	-
100.0 120.0	1.9	-	-	0.0	0.0	-	-	-	-	-	-	-
103.0 50.0	0.0	-	2.8	0.0	2.0	0.0	-	-	-	-	-	-
103.0 60.0	0.0	-	0.0	2.2	0.0	0.0	-	-	-	-	-	-
103.0 70.0	0.0	-	0.0	5.1	0.0	0.0	-	-	-	-	-	-
103.0 80.0	0.0	-	0.0	1.8	0.0	-	-	-	-	-	-	-
105.0 50.0	-	0.0	-	-	-	-	-	8.6	-	-	-	-
105.0 90.0	-	1.7	-	-	-	-	-	-	-	-	-	-
107.0 70.0	1.7	-	0.0	2.0	0.0	0.0	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	1.6	0.0	0.0	-	-	-	-	-	-
110.0 50.0	0.0	0.0	4.8	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	2.5	0.0
110.0 70.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
110.0 80.0	0.0	0.0	2.5	2.0	0.0	0.0	0.0	-	-	-	-	-
110.0 90.0	0.0	0.0	2.3	1.8	0.0	0.0	0.0	-	-	-	-	-
110.0 100.0	0.0	1.7	0.0	3.6	0.0	0.0	-	-	-	-	-	-
110.0 110.0	1.5	-	0.0	4.3	0.0	0.0	-	-	-	-	-	-
113.0 60.0	0.0	0.0	5.3	0.0	0.0	0.0	-	-	-	-	-	-
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	-	0.0	0.0	0.0
120.0 45.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0

TABLE 4. (cont.)

*Stomias atriventer* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 50.0	0.0	0.0	0.0	1.8	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0
120.0 70.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0 80.0	2.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0 90.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.8	-
120.0 100.0	3.8	2.2	0.0	0.0	0.0	2.0	-	-	-	-	-	-
120.0 110.0	2.1	-	0.0	0.0	0.0	0.0	-	-	-	-	-	-
123.0 50.0	4.4	0.0	0.0	0.0	0.0	-	1.8	0.0	5.1	-	-	-
123.0 60.0	0.0	1.8	0.0	3.4	0.0	-	0.0	0.0	-	-	-	-
127.0 40.0	0.0	0.0	0.0	2.0	3.4	3.4	0.0	0.0	0.0	0.0	0.0	-
127.0 50.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	-	-	-
127.0 60.0	4.4	0.0	0.0	0.0	0.7	-	0.0	0.0	-	-	-	-
130.0 35.0	0.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	0.0	0.0	-
130.0 40.0	1.9	0.0	0.0	0.0	0.0	0.9	-	-	0.0	0.0	2.9	-
130.0 60.0	1.5	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0 70.0	0.0	1.7	0.0	0.0	0.0	1.7	-	-	2.8	0.0	-	-
133.0 30.0	1.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	6.6	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 50.0	4.3	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 60.0	4.7	0.0	1.8	0.0	0.0	0.0	-	0.0	-	-	-	-
137.0 40.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
137.0 50.0	1.7	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
137.0 60.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	-	-	-	-
140.0 60.0	-	-	0.0	-	-	0.0	-	-	72.0	-	-	-
140.0 70.0	-	-	0.0	-	-	3.7	-	-	0.0	-	-	-
147.0 40.0	-	-	0.0	-	-	3.9	-	-	-	-	-	-
147.0 60.0	-	-	-	-	-	2.1	-	-	-	-	-	-
150.0 25.0	-	-	1.4	-	-	0.0	-	-	0.0	-	-	-
150.0 50.0	-	-	3.8	-	-	0.0	-	-	0.0	-	-	-
150.0 60.0	-	-	1.8	-	-	0.0	-	-	0.0	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	2.5	-	-	-
153.0 20.0	-	-	4.2	-	-	0.0	-	-	0.0	-	-	-
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-
157.0 10.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-	-
157.0 20.0	-	-	0.0	-	-	2.0	-	-	2.6	-	-	-

*Anotopterus pharao*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 120.0	0.0	-	-	0.0	2.0	-	-	-	-	-	-	-

## Paralepididae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 50.0	-	-	-	-	-	-	1.9	0.0	-	-	-	-



TABLE 4. (cont.)

## Paralepididae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 100.0	-	-	-	-	-	-	3.2	-	-	-	-	-
40.0 110.0	-	-	-	-	-	-	2.8	-	-	-	-	-
50.0 100.0	-	-	-	-	-	-	1.6	-	-	-	-	-
50.0 110.0	-	-	-	-	-	-	5.8	-	-	-	-	-
60.0 90.0	-	-	-	-	-	5.3	0.0	0.0	0.0	-	0.0	-
60.0 100.0	-	-	-	0.0	0.0	10.4	1.6	-	-	-	0.0	-
60.0 120.0	-	-	-	0.0	-	0.0	1.5	-	-	-	-	-
67.0 65.0	0.0	-	-	0.0	0.0	3.7	0.0	0.0	-	-	0.0	-
70.0 70.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.6	-
70.0 80.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	3.3	-
70.0 100.0	-	-	-	0.0	0.0	0.0	1.7	-	-	-	-	-
70.0 110.0	-	-	-	0.0	0.0	1.8	3.3	-	-	-	-	-
70.0 120.0	-	-	-	0.0	-	5.6	3.2	-	-	-	-	-
73.0 51.0	1.9	-	-	0.0	0.0	0.0	0.0	-	-	-	-	-
73.0 61.0	0.0	-	-	7.2	0.0	0.0	0.0	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	3.6	0.0	1.4	-	0.0	0.0	0.0
77.0 65.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	6.1	-
80.0 55.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.9	-	0.0	-
80.0 70.0	0.0	0.0	1.6	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
80.0 80.0	0.0	0.0	0.0	0.0	-	3.6	0.0	0.0	0.9	-	0.0	-
80.0 90.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	3.2	-	0.0	-
80.0 100.0	-	7.3	0.0	0.0	-	0.0	0.0	-	4.8	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	1.6	3.5	-	-	-	-	-
80.0 130.0	-	0.0	0.0	1.8	-	-	-	-	-	-	-	-
85.0 80.0	-	1.8	0.0	-	-	-	-	2.3	-	-	-	-
87.0 35.0	0.0	-	-	0.0	0.0	-	-	0.0	-	-	-	-
87.0 60.0	0.0	-	-	1.9	0.0	1.9	-	-	-	-	-	-
87.0 80.0	0.0	-	-	1.8	0.0	4.2	-	-	-	-	-	-
90.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	-
90.0 45.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
90.0 60.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
90.0 70.0	0.0	3.4	0.0	0.0	0.0	3.3	4.8	0.0	0.0	-	3.1	-
90.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	7.9	11.7	-	-	-	-
90.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 100.0	0.0	0.0	0.0	0.0	2.2	1.7	0.0	2.8	-	-	-	-
90.0 110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
90.0 120.0	2.0	0.0	0.0	1.5	0.0	-	-	-	-	-	-	-
93.0 40.0	0.0	0.0	0.0	1.6	1.8	-	-	0.0	0.0	0.0	-	0.0
93.0 50.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
93.0 60.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0	15.1	1.5	-	-
93.0 80.0	3.9	0.0	0.0	0.0	12.2	2.0	4.3	0.0	-	-	-	-
93.0 90.0	1.9	0.0	0.0	3.6	12.6	0.0	0.0	0.0	2.1	0.0	-	0.0
97.0 40.0	0.0	0.0	1.8	0.0	0.0	0.0	1.9	0.0	2.7	0.0	-	0.0
97.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
97.0 60.0	1.9	0.0	0.0	1.8	0.0	0.0	0.0	10.5	-	-	-	-

TABLE 4. (cont.)

## Paralepididae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	70.0	1.9	0.0	0.0	5.6	0.0	0.0	0.0	-	-	-	-
97.0	80.0	0.0	0.0	6.4	0.0	3.6	0.0	2.8	-	-	-	-
97.0	90.0	0.0	0.0	7.0	12.6	0.0	0.0	-	-	-	-	-
100.0	40.0	0.0	0.0	3.5	1.8	0.0	0.0	0.0	0.0	0.0	-	-
100.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0
100.0	60.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0
100.0	70.0	3.8	0.0	0.0	1.9	3.6	0.0	0.0	2.6	0.0	-	2.6
100.0	80.0	0.0	1.7	6.0	0.0	3.7	0.0	-	0.0	0.0	0.0	-
100.0	90.0	0.0	0.0	23.1	3.3	1.9	0.0	-	5.2	0.0	-	-
100.0	100.0	0.0	0.0	1.6	0.0	-	0.0	-	-	-	-	-
100.0	110.0	0.0	-	1.5	1.9	-	-	-	-	-	-	-
100.0	120.0	1.9	-	1.5	2.0	-	-	-	-	-	-	-
103.0	35.0	-	0.0	0.0	2.0	0.0	-	-	2.4	0.0	0.0	-
103.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	2.4	0.0	0.0	-
103.0	50.0	1.7	0.0	0.0	3.9	0.0	-	-	-	-	-	-
103.0	60.0	1.8	6.7	0.0	4.2	3.4	-	-	-	-	-	-
103.0	70.0	1.7	0.0	0.0	0.0	5.5	-	-	-	-	-	-
105.0	60.0	0.0	-	-	-	-	-	2.3	-	-	-	-
105.0	80.0	1.7	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	0.0	0.0	2.4	-
107.0	35.0	-	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	0.0	0.0	0.8	1.9	-	-	0.0	0.0	0.0	-
107.0	50.0	0.0	0.0	0.0	1.8	1.6	-	-	0.0	0.0	0.0	-
107.0	60.0	0.0	0.0	2.2	0.0	1.8	-	-	-	-	-	-
107.0	70.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	3.3	0.0	0.0	-	-	-	-	-	-
110.0	35.0	0.9	0.0	0.0	0.0	3.6	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	2.3
110.0	50.0	0.0	0.0	1.7	0.0	0.0	-	0.0	0.0	3.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.5	2.8
110.0	80.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	-	-	-	-
110.0	90.0	4.8	0.0	1.8	7.0	0.0	0.0	-	-	-	-	-
113.0	40.0	0.0	-	0.0	0.0	1.5	-	-	-	-	-	-
113.0	50.0	1.5	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	50.0	2.0	0.0	0.0	2.0	0.0	-	-	-	-	-	-
120.0	45.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
123.0	50.0	0.0	0.0	0.0	2.1	-	0.0	3.3	0.0	-	-	-
123.0	60.0	0.0	0.0	3.4	0.0	-	0.0	0.0	-	-	-	-
127.0	60.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
137.0	35.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	-	-	-
153.0	16.0	-	-	-	-	0.0	-	-	17.4	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	5.0	-	-	-
157.0	20.0	-	0.0	-	-	0.0	-	-	2.6	-	-	-

TABLE 4. (cont.)

*Aulopus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-

## Scopelarchidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 100.0	-	0.0	0.0	0.0	-	0.0	0.0	-	1.1	-	0.0	-
90.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0
90.0 80.0	1.8	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0 120.0	0.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-	-
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	-	0.0
93.0 80.0	0.0	1.9	0.0	0.0	3.5	2.0	4.3	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	1.8	0.0	6.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	1.6	0.0	1.8	0.0	0.0	-	-	-	-
97.0 90.0	0.0	0.0	0.0	1.8	7.2	0.0	2.0	-	-	-	-	-
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
100.0 80.0	0.0	0.0	0.0	6.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-
100.0 90.0	0.0	0.0	1.6	0.0	1.7	0.0	0.0	-	2.6	0.0	-	-
100.0 100.0	0.0	-	0.0	0.0	3.6	-	2.3	-	-	-	-	-
103.0 50.0	0.0	-	0.0	0.0	2.0	0.0	-	-	-	-	-	-
103.0 60.0	0.0	-	0.0	0.0	0.0	1.7	-	-	-	-	-	-
103.0 70.0	0.0	-	0.0	0.0	0.0	9.2	-	-	-	-	-	-
107.0 35.0	-	-	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-
107.0 50.0	0.0	-	0.0	0.0	1.8	0.0	-	-	-	-	-	-
107.0 70.0	0.0	-	0.0	0.0	0.0	6.5	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	0.0	0.0	2.0	-	-	-	-	-	-
110.0 35.0	0.0	0.0	0.0	0.0	1.3	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 50.0	0.0	0.0	0.0	0.0	2.8	0.0	-	0.0	0.0	0.0	0.0	2.9
110.0 90.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
110.0 100.0	0.0	0.0	0.0	0.0	3.7	0.0	-	-	-	-	-	-
117.0 60.0	1.2	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 50.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	-
120.0 70.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	-	5.2	0.0	-
120.0 90.0	0.0	2.0	0.0	0.0	0.0	0.0	1.8	2.7	0.0	0.0	0.0	-
120.0 100.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 110.0	2.1	-	0.0	0.0	0.0	0.0	-	-	-	-	-	-
123.0 50.0	0.0	1.8	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
127.0 60.0	4.4	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
130.0 35.0	3.6	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-
130.0 40.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.3	0.0	0.0	0.0	-
137.0 40.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-	-
140.0 60.0	-	-	1.9	-	-	0.0	-	-	0.0	-	-	-
153.0 20.0	-	-	2.1	-	-	0.0	-	-	2.7	-	-	-

TABLE 4. (cont.)

## Scopelarchidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
157.0 10.0	-	-	0.0	-	-	17.7	-	-	0.0	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	5.2	-	-	-

## Myctophidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
43.0 60.0	-	-	-	-	-	-	3.8	0.0	-	-	-	-
50.0 100.0	-	-	-	-	-	-	6.3	-	-	-	-	-
67.0 55.0	0.0	-	-	0.0	0.0	3.6	0.0	0.0	-	-	0.0	-
70.0 120.0	-	-	-	-	-	3.7	0.0	-	-	-	-	-
80.0 51.0	-	-	-	-	-	-	1.7	-	-	-	-	-
80.0 60.0	0.0	0.0	0.0	0.0	-	3.0	-	0.0	0.0	-	0.0	0.0
80.0 110.0	-	0.0	0.0	0.0	-	1.6	0.0	-	0.0	-	0.0	0.0
83.0 90.0	0.0	-	-	0.0	-	2.0	-	-	-	-	-	-
85.0 40.0	-	-	0.0	-	-	-	1.6	0.0	0.0	-	0.0	0.0
87.0 60.0	-	-	-	0.0	0.0	1.9	-	-	-	-	-	-
90.0 28.0	-	-	-	-	0.0	-	-	2.6	0.0	0.0	0.0	-
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
90.0 80.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-	-	-	-
90.0 100.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0 110.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	-	-	-	-	-
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	1.7	0.0	2.2	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	-	-	-	-	-
97.0 60.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 70.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	10.5	-	-	-	-
97.0 80.0	0.0	0.0	0.0	1.6	0.0	1.8	0.0	2.8	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	-	-	-	-	-
100.0 29.0	-	-	-	-	-	-	-	0.0	1.2	0.0	-	0.0
100.0 60.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	-	0.0
100.0 80.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	-	2.6	0.0	0.0	-
100.0 90.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0 110.0	0.0	-	-	1.5	0.0	-	-	-	0.0	-	-	-
103.0 35.0	-	-	0.0	2.1	0.0	0.0	-	-	2.4	0.0	0.0	-
105.0 32.0	-	-	-	-	-	-	-	1.7	-	-	0.0	-
107.0 40.0	0.0	-	0.0	0.0	1.7	0.0	-	-	0.0	0.0	0.0	-
107.0 80.0	1.8	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
110.0 50.0	0.0	0.0	0.0	1.7	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 60.0	0.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 70.0	2.1	0.0	0.0	0.0	3.4	0.0	-	-	-	-	-	-
110.0 80.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	-	-	-	-	-



TABLE 4. (cont.)

## Myctophidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0 100.0	0.0	0.0	0.0	1.8	0.0	4.5	-	-	-	-	-	-
110.0 110.0	0.0	-	0.0	4.3	1.9	0.0	-	-	-	-	-	-
115.0 40.0	-	-	-	-	-	-	-	0.0	2.3	0.0	0.0	0.0
117.0 40.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
117.0 70.0	0.0	0.0	0.0	0.0	6.0	0.0	-	-	-	-	-	-
120.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	-
120.0 90.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0 100.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 110.0	2.1	-	0.0	0.0	0.0	0.0	-	-	-	-	-	-
123.0 37.0	-	-	-	-	-	-	-	0.0	0.0	-	0.0	2.2
123.0 40.0	0.0	1.9	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
123.0 50.0	0.0	0.0	2.7	1.9	0.0	-	0.0	0.0	0.0	-	-	-
127.0 40.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	2.7	0.0	-
127.0 60.0	0.0	0.0	0.0	0.0	1.5	-	1.6	0.0	-	-	-	-
130.0 40.0	0.0	9.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
130.0 60.0	0.0	0.0	0.0	2.5	3.4	0.0	-	0.0	0.0	0.0	0.0	-
130.0 70.0	0.0	0.0	0.0	0.0	0.0	1.7	-	-	0.0	0.0	0.0	-
130.0 80.0	0.0	0.0	0.0	0.0	0.0	3.8	-	0.0	-	-	-	-
133.0 50.0	0.0	7.2	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 60.0	0.0	0.0	7.1	0.0	0.0	0.0	-	-	-	-	-	-
137.0 23.0	-	-	-	-	-	-	-	0.0	0.0	2.4	0.0	-
137.0 35.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
137.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	4.6	-	-	-	-
137.0 60.0	0.0	1.8	3.9	0.0	1.8	0.0	-	-	-	-	-	-
143.0 40.0	-	-	0.0	-	-	12.2	-	-	-	-	-	-
143.0 60.0	-	-	-	-	-	2.0	-	-	-	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	2.6	-	-	-
150.0 40.0	-	-	0.0	-	-	3.9	-	-	0.0	-	-	-
150.0 50.0	-	-	11.3	-	-	0.0	-	-	0.0	-	-	-
150.0 60.0	-	-	1.8	-	-	1.8	-	-	0.0	-	-	-
150.0 70.0	-	-	5.8	-	-	3.6	-	-	0.0	-	-	-
150.0 80.0	-	-	0.0	-	-	0.0	-	-	2.9	-	-	-
150.0 90.0	-	-	-	-	-	0.0	-	-	2.7	-	-	-
150.0 100.0	-	-	-	-	-	-	-	-	15.2	-	-	-
153.0 30.0	-	-	2.0	-	-	0.0	-	-	-	-	-	-
153.0 50.0	-	-	1.8	-	-	0.0	-	-	-	-	-	-
157.0 30.0	-	-	16.7	-	-	2.1	-	-	-	-	-	-
157.0 40.0	-	-	3.3	-	-	0.0	-	-	-	-	-	-
157.0 50.0	-	-	1.8	-	-	0.0	-	-	-	-	-	-

## Ceratoscopelus townsendi

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 100.0	-	-	-	0.0	0.0	3.5	1.6	-	-	-	0.0	-
60.0 120.0	-	-	-	-	-	0.0	1.5	-	-	-	-	-

TABLE 4. (cont.)

*Ceratoscopelus townsendi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 130.0	-	-	-	-	-	2.0	-	-	-	-	-	-
70.0 120.0	-	-	-	-	-	18.7	0.0	-	-	-	-	-
70.0 130.0	-	-	-	-	-	8.7	-	-	-	-	-	-
80.0 80.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	1.4	-	0.0	0.0
80.0 100.0	-	0.0	0.0	0.0	-	0.0	0.0	-	6.8	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	0.0	1.7	-	-	-	-	-
83.0 80.0	0.0	-	-	1.9	-	0.0	-	-	-	-	-	-
85.0 80.0	-	-	10.0	-	-	-	-	0.0	-	-	-	-
87.0 80.0	0.0	-	-	0.0	0.0	6.3	-	-	-	-	-	-
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0
90.0 70.0	0.0	0.0	0.0	1.4	0.0	5.0	0.0	0.0	0.0	-	0.0	-
90.0 80.0	0.0	0.0	0.0	0.0	2.1	0.0	2.0	2.9	-	-	-	-
90.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	-	-	-	-
90.0 100.0	1.9	0.0	36.8	6.8	6.6	0.0	0.0	0.0	-	-	-	-
90.0 110.0	0.0	10.3	19.8	13.4	0.0	1.8	0.0	-	-	-	-	-
90.0 120.0	0.0	7.6	1.9	6.4	24.5	-	-	-	-	-	-	-
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6	-	-	-	-
93.0 80.0	0.0	5.7	0.0	0.0	8.7	16.0	2.2	2.4	-	-	-	-
93.0 90.0	0.0	2.0	0.0	1.8	21.0	74.0	1.9	-	4.3	0.0	-	0.0
97.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 60.0	0.0	0.0	0.0	1.8	1.9	0.0	0.0	5.3	-	-	-	-
97.0 70.0	0.0	0.0	0.0	11.8	1.9	0.0	0.0	18.3	-	-	-	-
97.0 80.0	0.0	1.6	0.0	72.0	9.9	0.0	0.0	2.8	-	-	-	-
97.0 90.0	0.0	0.0	0.0	1.8	48.6	0.0	0.0	-	-	-	-	-
100.0 40.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0 60.0	0.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0	0.0	24.1	0.0	0.0
100.0 70.0	0.0	1.8	0.0	3.0	1.9	7.2	0.0	0.0	0.0	0.0	0.0	7.7
100.0 80.0	0.0	9.3	3.4	19.4	0.0	0.0	0.0	0.0	0.0	2.7	0.0	-
100.0 90.0	1.8	1.6	0.0	23.1	1.7	0.0	0.0	-	33.7	0.0	-	-
100.0 100.0	0.0	-	6.7	6.4	9.0	-	22.7	-	-	-	-	-
100.0 110.0	3.8	-	-	0.0	11.6	-	-	-	-	-	-	-
100.0 120.0	9.5	-	-	3.0	2.0	-	-	-	-	-	-	-
103.0 35.0	-	-	-	0.0	0.0	0.0	-	-	-	-	-	-
103.0 40.0	0.0	-	0.0	0.0	0.0	0.0	-	-	2.4	0.0	0.0	-
103.0 70.0	0.0	-	0.0	1.7	0.0	0.0	-	-	0.0	0.0	0.0	-
103.0 80.0	1.8	-	0.0	0.0	4.0	0.0	-	-	-	-	-	-
105.0 40.0	-	0.0	-	-	0.0	-	-	2.7	-	-	-	-
105.0 50.0	-	0.0	-	-	-	-	-	2.9	-	-	-	-
105.0 90.0	-	1.7	-	-	-	-	-	-	-	-	-	-
107.0 35.0	-	-	-	-	-	-	-	-	0.0	0.0	0.0	-
107.0 60.0	0.0	-	0.0	0.0	0.0	1.8	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	0.0	1.8	0.0	-	-	-	-	-	-
110.0 50.0	0.0	0.0	0.0	1.6	0.0	0.0	-	0.0	2.5	3.0	0.0	0.0
110.0 60.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	8.3
110.0 80.0	0.0	0.0	0.0	9.8	0.0	0.0	0.0	-	-	-	-	-

TABLE 4. (cont.)

*Ceratoscopelus townsendi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	90.0	0.0	2.3	1.8	2.8	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	0.0	5.5	25.9	0.0	-	-	-	-	-	-
110.0	110.0	0.0	0.0	4.3	3.8	1.7	-	-	-	-	-	-
120.0	50.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	-	0.0	0.0	0.0
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	-	10.5	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	0.0	3.8	0.0	0.0	0.0	2.7	2.8	6.1	0.0	-
120.0	100.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	110.0	0.0	2.5	0.0	0.0	0.0	-	-	0.0	-	-	-
123.0	50.0	0.0	0.0	1.9	0.0	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	0.0	0.0	0.0	-	0.0	7.3	-	-	-	-
127.0	50.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
127.0	60.0	0.0	0.0	0.0	0.0	-	0.0	4.9	-	-	-	-
130.0	40.0	0.0	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	5.0	3.4	0.0	-	0.0	0.0	0.0	0.0	-
130.0	70.0	1.5	19.9	0.0	0.0	0.0	-	-	0.0	0.0	-	-
130.0	80.0	0.0	0.0	0.0	36.8	0.0	-	-	-	-	-	-
133.0	50.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
137.0	40.0	0.0	0.0	1.7	0.0	2.1	0.0	0.0	-	-	-	-
137.0	60.0	0.0	0.0	0.0	0.0	1.7	-	-	-	-	-	-
140.0	60.0	-	0.0	-	-	1.9	-	-	0.0	-	-	-
140.0	80.0	-	4.4	-	-	0.0	-	-	0.0	-	-	-
147.0	30.0	-	0.0	-	-	8.0	-	-	0.0	-	-	-
150.0	80.0	-	0.0	-	-	0.0	-	-	2.9	-	-	-
150.0	90.0	-	-	-	-	5.6	-	-	0.0	-	-	-

*Diaphus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	45.0	-	-	-	-	-	3.3	-	-	-	-	-
40.0	60.0	-	-	-	-	-	9.2	0.0	-	-	-	-
40.0	80.0	-	-	-	-	-	33.0	0.0	-	-	-	-
40.0	90.0	-	-	-	-	-	3.2	-	-	-	-	-
40.0	100.0	-	-	-	-	-	57.6	-	-	-	-	-
40.0	110.0	-	-	-	-	-	1.4	-	-	-	-	-
43.0	42.0	-	-	-	-	-	-	2.7	-	-	-	-
43.0	50.0	-	-	-	-	-	-	4.5	-	-	-	-
43.0	60.0	-	-	-	-	-	7.7	0.0	-	-	-	-
47.0	60.0	-	-	-	-	-	2.8	0.0	-	-	-	-
50.0	47.0	-	-	-	-	-	-	1.4	-	-	-	-
50.0	60.0	-	-	-	-	-	9.7	0.0	-	-	-	-
50.0	70.0	-	-	-	-	-	19.0	3.2	-	-	-	-
50.0	80.0	-	-	-	-	-	17.8	12.1	-	-	-	-
50.0	90.0	-	-	-	-	-	110.4	-	-	-	-	-

TABLE 4. (cont.)

*Diaphus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
50.0 100.0	-	-	-	-	-	-	214.9	-	-	-	-	-
50.0 110.0	-	-	-	-	-	-	153.3	-	-	-	-	-
53.0 54.0	-	-	-	-	-	-	79.4	-	-	-	-	-
53.0 64.0	-	-	-	-	-	-	5.6	-	-	-	-	-
53.0 65.0	-	-	-	-	-	-	-	4.3	-	-	-	-
57.0 55.0	-	-	-	-	-	-	-	4.4	-	-	-	-
57.0 64.0	-	-	-	-	-	-	23.9	-	-	-	-	-
57.0 65.0	-	-	-	-	-	-	-	5.2	-	-	-	-
60.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	-
60.0 70.0	-	-	-	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-
60.0 80.0	-	-	-	0.0	0.0	8.7	28.0	7.9	6.1	0.0	0.0	-
60.0 90.0	-	-	-	0.0	0.0	88.5	57.1	14.9	0.0	-	0.0	-
60.0 100.0	-	-	-	0.0	0.0	107.3	52.1	-	-	-	6.5	-
60.0 110.0	-	-	-	0.0	0.0	21.1	0.0	-	-	-	-	-
60.0 120.0	-	-	-	-	-	19.6	27.0	-	-	-	-	-
60.0 130.0	-	-	-	-	-	2.0	-	-	-	-	-	-
63.0 57.0	0.0	-	-	0.0	0.0	0.0	12.5	-	-	-	-	-
63.0 67.0	0.0	-	-	0.0	-	13.6	105.3	-	-	-	-	-
67.0 65.0	0.0	-	-	0.0	0.0	3.7	11.0	5.4	-	-	0.0	-
70.0 55.0	0.0	-	-	0.0	0.0	60.8	1.6	-	-	-	-	-
70.0 60.0	0.0	-	-	0.0	0.0	0.0	3.3	0.0	-	0.0	0.0	-
70.0 70.0	0.0	-	-	0.0	0.0	0.0	6.8	0.0	-	5.6	0.0	-
70.0 80.0	0.0	-	-	0.0	0.0	0.0	96.9	6.3	-	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	0.0	0.0	66.4	0.0	-	0.0	-	-
70.0 100.0	-	-	-	0.0	0.0	23.2	11.8	-	-	-	-	-
70.0 110.0	-	-	-	0.0	0.0	1.8	1.6	-	-	-	-	-
70.0 120.0	-	-	-	-	-	1.9	4.8	-	-	-	-	-
73.0 51.0	0.0	-	-	0.0	0.0	0.0	3.1	-	-	-	-	-
73.0 61.0	0.0	-	-	0.0	0.0	3.6	0.0	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	1.2	-	2.4	3.1	-
77.0 65.0	0.0	-	-	0.0	0.0	16.0	0.0	0.0	-	0.0	0.0	-
80.0 60.0	0.0	0.0	0.0	0.0	-	3.0	-	0.0	0.0	-	0.0	-
80.0 80.0	0.0	0.0	0.0	0.0	-	0.0	10.4	0.0	0.0	-	0.0	-
80.0 90.0	0.0	0.0	0.0	0.0	-	1.7	3.3	0.0	0.0	-	0.0	-
80.0 100.0	-	0.0	0.0	0.0	-	0.0	6.8	-	1.6	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	9.7	0.0	-	10.5	-	0.0	-
83.0 43.0	-	-	-	0.0	-	-	-	-	-	-	3.6	0.0
83.0 70.0	0.0	-	-	0.0	4.3	-	-	-	-	-	-	-
83.0 80.0	0.0	-	-	0.0	-	3.8	-	-	-	-	-	-
85.0 70.0	-	-	0.0	-	-	-	-	10.7	-	-	-	-
85.0 80.0	-	-	0.0	-	-	-	-	4.6	-	-	-	-
87.0 80.0	0.0	-	-	0.0	0.0	2.1	-	-	-	-	-	-
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	-
90.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	-
90.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.9	-	0.0	-
90.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	14.7	-	-	-	-



TABLE 4. (cont.)

*Diaphus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 100.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	2.8	-	-	-	-
93.0 27.0	-	-	-	-	-	-	-	1.4	0.0	0.0	-	0.0
93.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	-	0.0
93.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	-	0.0
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	54.8	-	-	-	-
93.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	-	1.8	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	-	-	-	-
97.0 32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	-	-
97.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	10.7	0.0	-	0.0
97.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-	0.0
97.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	15.8	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-
100.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	-	-
100.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	-	0.0
103.0 35.0	-	-	0.0	0.0	0.0	0.0	-	0.0	9.4	0.0	0.0	-
105.0 60.0	-	0.0	-	-	-	-	-	7.0	-	-	-	-
107.0 40.0	0.0	-	0.0	0.0	0.0	1.9	-	-	0.0	0.0	0.0	-
107.0 80.0	0.0	-	0.0	0.0	2.3	0.0	-	-	-	-	-	-
110.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
120.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	0.0	0.0	-
153.0 16.0	-	-	0.0	-	-	-	-	-	14.9	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	25.0	-	-	-

*Lampadena urophaos*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 90.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	8.2	2.8
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	5.1
100.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	-	0.0	0.0	0.0	-
100.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	5.2	0.0	-	-
100.0 100.0	0.0	-	0.0	0.0	0.0	-	2.3	-	-	-	-	-
100.0 110.0	0.0	-	-	1.5	3.9	-	-	-	-	-	-	-
100.0 120.0	0.0	-	-	1.5	0.0	-	-	-	-	-	-	-
105.0 40.0	-	0.0	-	-	0.0	-	-	2.7	-	-	-	-
110.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-
110.0 100.0	0.0	0.0	0.0	0.0	7.4	0.0	-	-	-	-	-	-
110.0 110.0	0.0	-	0.0	0.0	1.9	0.0	-	-	-	-	-	-
115.0 50.0	-	-	-	-	-	-	-	10.0	-	-	-	-
120.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.8	-	10.5	0.0	-
120.0 80.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.8	0.0	0.0	-

TABLE 4. (cont.)

*Lampadena urophaos* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 100.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 110.0	0.0	-	0.0	0.0	0.0	1.8	-	-	-	-	-	-
127.0 34.0	-	-	-	-	-	-	-	0.0	4.8	0.0	0.0	-
127.0 60.0	0.0	0.0	2.6	0.0	0.8	-	0.0	9.7	-	-	-	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	-
130.0 60.0	0.0	0.0	0.0	2.5	0.0	1.8	-	0.0	0.0	0.0	0.0	-
130.0 80.0	0.0	0.0	0.0	0.0	5.3	3.8	-	-	-	-	-	-
130.0 90.0	-	-	-	-	-	10.7	-	-	-	-	-	-
133.0 50.0	0.0	0.0	0.0	2.0	0.0	0.0	-	0.0	-	-	-	-
137.0 60.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-	-
140.0 60.0	-	-	0.0	-	-	1.9	-	-	0.0	-	-	-
150.0 30.0	-	-	0.0	-	-	0.0	-	-	2.4	-	-	-

*Lampanyctus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 60.0	-	-	-	-	-	-	18.4	5.0	-	-	-	-
40.0 80.0	-	-	-	-	-	-	3.3	2.1	-	-	-	-
40.0 90.0	-	-	-	-	-	-	1.6	-	-	-	-	-
40.0 100.0	-	-	-	-	-	-	4.8	-	-	-	-	-
40.0 110.0	-	-	-	-	-	-	4.2	-	-	-	-	-
43.0 60.0	-	-	-	-	-	-	19.2	0.0	-	-	-	-
47.0 60.0	-	-	-	-	-	-	0.0	4.9	-	-	-	-
50.0 60.0	-	-	-	-	-	-	1.6	0.0	-	-	-	-
50.0 70.0	-	-	-	-	-	-	2.7	3.2	-	-	-	-
50.0 80.0	-	-	-	-	-	-	8.9	8.0	-	-	-	-
50.0 90.0	-	-	-	-	-	-	9.6	-	-	-	-	-
50.0 100.0	-	-	-	-	-	-	3.2	-	-	-	-	-
50.0 110.0	-	-	-	-	-	-	17.5	-	-	-	-	-
53.0 54.0	-	-	-	-	-	-	4.2	-	-	-	-	-
57.0 64.0	-	-	-	-	-	-	4.0	-	-	-	-	-
57.0 65.0	-	-	-	-	-	-	-	2.6	-	-	-	-
60.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	-
60.0 80.0	-	-	-	0.0	1.8	0.0	7.0	2.6	0.0	5.5	0.0	-
60.0 90.0	-	-	-	0.0	0.0	7.1	8.7	0.0	0.0	-	0.0	-
60.0 100.0	-	-	-	0.0	0.0	48.4	1.6	-	-	-	0.0	-
60.0 110.0	-	-	-	7.4	3.7	10.6	1.5	-	-	-	-	-
60.0 120.0	-	-	-	-	-	12.5	0.0	-	-	-	-	-
60.0 130.0	-	-	-	-	-	5.9	-	-	-	-	-	-
63.0 67.0	0.0	-	-	0.0	-	0.0	15.0	-	-	-	-	-
67.0 50.0	-	-	-	-	-	-	3.0	3.0	-	-	0.0	-
67.0 55.0	0.0	-	-	0.0	3.1	0.0	1.8	0.0	-	-	0.0	-
67.0 65.0	0.0	-	-	0.0	0.0	7.4	0.0	0.0	-	-	0.0	-
70.0 51.0	-	-	-	-	-	-	-	0.0	-	-	1.6	-
70.0 60.0	0.0	-	-	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	-

TABLE 4. (cont.)

*Lampanyctus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	70.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.6	-
70.0	80.0	0.0	-	0.0	6.4	29.1	6.9	0.0	-	0.0	0.0	-
70.0	90.0	0.0	-	17.6	3.5	29.0	15.1	0.0	-	2.5	0.0	-
70.0	100.0	-	-	3.6	8.9	0.0	1.7	-	-	-	-	-
70.0	110.0	-	-	7.4	3.4	1.8	0.0	-	-	-	-	-
70.0	120.0	-	-	-	-	7.5	0.0	-	-	-	-	-
70.0	130.0	-	-	-	-	1.7	-	-	-	-	-	-
73.0	51.0	-	-	0.0	0.0	2.7	0.0	-	-	-	-	-
73.0	61.0	0.0	-	0.0	0.0	3.6	0.0	-	-	-	-	-
77.0	55.0	0.0	-	0.0	0.0	3.6	1.9	1.2	-	0.0	0.0	-
77.0	65.0	0.0	-	3.5	1.8	8.0	2.3	0.0	-	0.0	0.0	0.0
80.0	51.0	-	-	-	-	-	0.0	-	0.0	-	2.9	0.0
80.0	55.0	0.0	0.0	0.0	0.0	3.3	0.0	-	0.0	-	0.0	0.0
80.0	60.0	0.0	4.6	0.0	-	3.0	-	0.0	0.0	-	0.0	0.0
80.0	70.0	0.0	4.1	8.5	-	0.0	1.9	0.0	0.0	-	0.0	0.0
80.0	80.0	0.0	4.9	6.6	0.0	0.0	5.2	0.0	3.6	-	0.0	0.0
80.0	90.0	0.0	4.8	3.9	1.7	1.7	5.0	0.0	6.9	-	0.0	-
80.0	100.0	0.0	0.0	1.6	1.6	1.6	1.7	-	1.1	-	0.0	-
80.0	110.0	0.0	1.8	1.9	35.4	5.2	5.2	-	-	-	-	-
80.0	120.0	-	0.0	3.5	-	-	-	-	-	-	-	-
80.0	130.0	-	6.5	9.1	-	-	-	-	-	-	-	-
83.0	55.0	-	-	3.1	1.4	-	-	-	0.0	-	-	-
83.0	60.0	0.0	-	0.0	3.6	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	6.8	6.3	-	-	-	0.0	-	-	-
83.0	80.0	0.0	-	9.5	-	0.0	-	-	-	-	-	-
83.0	90.0	0.0	-	4.8	-	2.0	1.6	-	0.0	-	0.0	0.0
85.0	40.0	-	0.0	-	-	-	-	0.0	-	-	-	-
85.0	70.0	-	0.0	-	-	-	-	2.7	-	-	-	-
85.0	80.0	-	0.0	-	-	-	-	4.6	-	-	-	-
85.0	90.0	-	4.8	-	-	-	-	0.0	-	-	-	-
87.0	35.0	0.0	-	0.0	1.8	-	-	-	-	-	-	-
87.0	40.0	3.9	-	2.1	0.0	-	-	-	-	-	-	-
87.0	60.0	0.0	-	5.7	0.0	3.7	-	-	-	-	-	-
87.0	70.0	0.0	-	7.0	1.7	2.2	-	-	-	-	-	-
87.0	80.0	0.0	-	0.0	1.9	40.1	-	-	-	-	-	-
87.0	90.0	0.0	-	15.8	1.9	2.5	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	2.6	0.0	0.0	0.0	-
90.0	30.0	0.0	0.0	0.0	0.0	7.6	0.0	2.3	0.0	0.0	0.0	0.0
90.0	37.0	0.0	1.6	0.0	0.0	1.8	1.6	1.8	0.0	0.0	0.0	0.0
90.0	45.0	4.0	0.0	0.0	5.9	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.2	0.0	0.0	5.1
90.0	60.0	0.0	0.0	4.2	21.6	0.0	0.0	0.0	0.0	2.0	3.1	0.0
90.0	70.0	0.0	3.0	16.4	5.3	5.0	7.1	2.7	0.0	-	0.0	-
90.0	80.0	0.0	2.1	3.5	8.3	3.6	0.0	0.0	-	-	-	-
90.0	90.0	0.0	2.1	7.9	7.2	0.0	1.7	0.0	-	-	-	-
90.0	100.0	5.6	20.2	12.3	11.0	20.8	3.4	2.8	-	-	-	-

TABLE 4. (cont.)

*Lampanyctus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 110.0	0.0	0.0	11.6	13.4	0.0	18.1	7.1	-	-	-	-	-
90.0 120.0	0.0	5.7	0.0	11.2	15.8	-	-	1.4	0.0	0.0	-	0.0
93.0 27.0	-	-	-	-	-	-	-	2.5	2.3	1.3	-	12.2
93.0 30.0	1.8	1.8	1.6	12.2	0.0	3.7	0.0	2.5	0.0	0.0	-	4.9
93.0 40.0	0.0	3.5	3.6	18.3	0.0	0.0	0.0	2.6	0.0	1.5	-	0.0
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
93.0 60.0	0.0	0.0	2.0	5.3	6.9	1.5	-	5.2	-	-	-	-
93.0 70.0	0.0	0.0	0.0	9.0	6.0	2.0	-	0.0	-	-	-	-
93.0 80.0	3.9	3.8	0.0	9.5	41.8	22.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	3.8	3.6	35.7	18.0	3.8	2.4	-	-	-	-
97.0 30.0	-	-	-	-	-	-	-	2.0	0.0	0.6	-	1.5
97.0 32.0	1.8	0.0	0.0	2.8	0.0	4.4	1.8	2.2	0.0	0.0	-	-
97.0 40.0	3.7	14.7	5.4	1.9	8.0	4.3	1.9	3.2	2.1	0.0	-	0.0
97.0 50.0	0.0	0.0	1.6	0.0	20.0	7.4	3.7	0.0	0.0	2.8	-	0.0
97.0 60.0	0.0	3.6	5.0	14.4	7.6	7.0	3.3	7.9	-	-	-	-
97.0 70.0	1.9	3.1	0.0	10.1	5.6	3.8	0.0	0.0	-	-	-	-
97.0 80.0	5.3	3.2	0.0	75.2	11.6	7.3	3.6	0.0	-	-	-	-
97.0 90.0	0.0	1.9	4.9	3.5	10.8	6.5	0.0	-	-	-	-	-
100.0 30.0	1.6	0.0	0.0	1.7	1.7	0.0	-	0.0	0.0	0.0	-	0.0
100.0 40.0	0.0	1.9	0.0	17.4	7.2	9.6	1.9	0.0	4.5	1.3	-	-
100.0 50.0	1.9	2.0	1.6	14.9	6.3	5.6	5.4	4.0	0.0	0.0	0.0	0.0
100.0 60.0	22.3	5.8	1.6	9.6	0.0	5.0	2.7	2.7	0.0	6.6	0.0	5.6
100.0 70.0	15.3	1.8	0.0	13.7	0.0	12.6	0.0	0.0	0.0	8.1	-	12.8
100.0 80.0	0.0	5.6	8.6	6.0	0.0	9.2	3.8	0.0	0.0	0.0	5.7	-
100.0 90.0	3.6	3.2	3.1	6.4	3.3	0.0	0.0	-	2.6	0.0	-	-
100.0 100.0	1.9	-	1.7	3.0	1.8	-	0.0	-	-	-	-	-
100.0 110.0	0.0	-	-	1.5	9.7	-	-	-	-	-	-	-
100.0 120.0	0.0	-	-	-	6.0	-	-	-	-	-	-	-
103.0 30.0	-	-	-	-	-	-	-	0.0	-	0.8	0.0	-
103.0 35.0	-	-	4.9	2.1	2.0	1.6	-	-	9.4	0.0	1.0	-
103.0 40.0	0.0	-	2.8	5.2	13.3	0.0	-	-	0.0	0.0	2.6	-
103.0 50.0	0.0	-	11.2	3.7	3.9	0.0	-	-	-	-	-	-
103.0 60.0	0.0	-	13.4	6.7	10.5	3.4	-	-	-	-	-	-
103.0 70.0	10.2	-	0.0	5.1	6.0	7.4	-	-	-	-	-	-
103.0 80.0	0.0	-	17.1	3.7	15.4	-	-	-	-	-	-	-
105.0 32.0	-	-	-	-	-	-	-	1.7	-	-	-	-
105.0 35.0	1.7	0.0	-	-	-	-	-	0.0	-	-	-	-
105.0 40.0	-	37.4	-	-	-	-	-	0.0	-	-	-	-
105.0 50.0	-	1.6	-	-	-	-	-	0.0	-	-	-	-
105.0 60.0	-	1.7	-	-	-	-	-	0.0	-	-	-	-
105.0 90.0	-	3.5	-	-	-	-	-	2.3	-	-	-	-
107.0 32.0	-	-	-	-	-	-	-	-	0.0	1.5	2.4	-
107.0 35.0	-	-	-	-	-	-	-	-	0.0	1.3	0.0	-
107.0 40.0	0.0	-	0.0	6.4	0.0	1.8	-	-	0.0	0.0	0.0	-
107.0 50.0	12.0	-	2.5	27.1	8.3	0.0	-	-	0.0	0.0	-	-
107.0 60.0	3.3	-	5.7	8.2	1.8	1.6	-	-	0.0	0.0	-	-
107.0	3.3	-	5.4	0.0	5.4	1.8	-	-	-	-	-	-



TABLE 4. (cont.)

*Lampanyctus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	70.0	0.0	10.3	12.1	8.6	8.6	-	-	-	-	-	-
107.0	80.0	0.0	5.0	32.8	16.0	2.0	-	-	-	-	-	-
110.0	35.0	0.0	2.6	0.0	0.0	3.6	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	1.7	2.6	0.0	1.3	4.8	-	5.3	0.0	0.0	0.0	0.0
110.0	50.0	5.0	11.9	10.4	9.8	2.9	-	0.0	0.0	0.0	0.0	8.6
110.0	60.0	1.6	10.4	0.0	15.6	0.0	-	0.0	2.7	0.0	10.0	2.8
110.0	70.0	0.0	7.5	0.0	15.2	0.0	-	-	-	-	-	-
110.0	80.0	0.0	0.0	2.0	2.0	1.7	3.7	-	-	-	-	-
110.0	90.0	9.6	16.3	7.2	12.6	2.0	0.0	-	-	-	-	-
110.0	100.0	7.2	2.3	0.0	1.9	0.0	-	-	-	-	-	-
110.0	110.0	3.0	0.0	8.6	3.8	0.0	-	-	-	-	-	-
113.0	35.0	0.0	32.9	2.4	0.0	0.0	-	-	-	-	-	-
113.0	40.0	0.0	-	1.9	0.0	0.0	-	-	-	-	-	-
113.0	50.0	7.5	0.0	1.9	8.6	0.0	-	-	-	-	-	-
113.0	60.0	2.0	0.0	27.0	0.0	0.0	-	-	-	-	-	-
113.0	70.0	3.1	0.0	4.8	1.6	5.5	-	-	-	-	-	-
115.0	60.0	-	-	-	-	-	-	2.9	-	-	-	-
117.0	35.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
117.0	40.0	1.1	0.0	1.6	0.0	5.0	-	-	-	-	-	-
117.0	50.0	2.0	2.6	14.9	0.0	0.0	-	-	-	-	-	-
117.0	60.0	1.2	0.0	2.2	6.3	0.0	-	-	-	-	-	-
117.0	70.0	3.3	0.0	0.0	3.0	0.0	-	-	-	-	-	-
120.0	45.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0
120.0	50.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	2.8	2.4	-
120.0	70.0	2.2	18.2	0.0	0.0	0.0	0.0	1.4	-	5.2	0.0	-
120.0	80.0	2.0	8.1	2.0	0.0	0.0	1.7	0.0	12.8	2.7	0.0	-
120.0	90.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-
120.0	100.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	110.0	2.1	0.0	0.0	0.0	1.8	-	-	-	-	-	-
123.0	37.0	-	-	-	0.0	-	-	0.0	0.0	-	0.0	2.2
123.0	40.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	-	0.0	0.0
123.0	50.0	0.0	0.0	13.4	2.1	-	3.7	0.0	0.0	-	-	-
123.0	60.0	0.0	7.8	1.7	6.7	-	0.0	4.8	-	-	-	-
127.0	34.0	-	-	-	0.0	-	-	0.0	1.6	0.0	0.0	-
127.0	40.0	0.0	0.0	0.0	0.0	1.7	1.9	0.0	0.0	5.4	0.0	-
127.0	50.0	0.0	2.6	9.3	1.7	-	5.3	0.0	2.7	-	-	-
127.0	60.0	8.7	0.0	0.0	2.8	-	0.0	0.0	-	-	-	-
130.0	35.0	0.0	0.0	1.4	0.0	0.8	-	0.0	0.0	0.0	2.6	-
130.0	40.0	0.0	0.0	0.0	4.8	5.5	-	0.0	0.0	9.4	0.0	-
130.0	50.0	0.0	0.0	3.8	1.7	1.4	-	0.0	0.0	0.0	2.6	-
130.0	60.0	0.0	4.2	10.0	0.0	3.5	-	0.0	3.2	0.0	0.0	-
130.0	70.0	1.5	0.0	0.0	6.7	1.7	-	-	2.8	6.3	-	-
130.0	80.0	0.0	0.0	0.0	8.8	18.9	-	-	-	-	-	-
130.0	90.0	-	0.0	-	-	1.8	-	-	-	-	-	-
133.0	30.0	1.8	0.0	1.6	0.0	0.0	-	0.0	0.0	0.0	0.0	-

TABLE 4. (cont.)

*Lampanyctus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0	40.0	3.3	11.0	2.2	0.0	0.0	-	0.0	-	-	-	-
133.0	50.0	0.0	14.5	0.0	9.0	1.9	-	0.0	-	-	-	-
133.0	60.0	6.2	3.2	0.0	5.6	1.9	-	0.0	-	-	-	-
137.0	35.0	0.0	1.7	2.0	0.0	0.0	0.0	-	-	-	-	-
137.0	40.0	3.3	1.6	0.0	0.0	0.0	0.0	0.0	-	-	-	-
137.0	50.0	3.4	3.4	0.0	3.7	0.9	-	0.0	-	-	-	-
137.0	60.0	2.1	14.0	0.0	1.8	3.4	-	-	-	-	-	-
140.0	50.0	-	-	6.1	-	0.0	-	-	0.0	-	-	-
140.0	60.0	-	-	1.9	-	0.0	-	-	0.0	-	-	-
140.0	70.0	-	-	0.0	-	3.7	-	-	2.6	-	-	-
140.0	80.0	-	-	2.2	-	0.0	-	-	-	-	-	-
140.0	90.0	-	-	-	-	1.9	-	-	-	-	-	-
143.0	35.0	-	-	0.0	-	3.8	-	-	0.0	-	-	-
143.0	40.0	-	-	1.9	-	0.0	-	-	-	-	-	-
143.0	50.0	-	-	2.2	-	13.1	-	-	-	-	-	-
147.0	60.0	-	-	-	-	4.2	-	-	-	-	-	-
150.0	19.0	-	-	-	-	-	-	-	7.7	-	-	-
150.0	25.0	-	-	4.2	-	0.0	-	-	0.0	-	-	-
150.0	30.0	-	-	4.0	-	0.0	-	-	0.0	-	-	-
150.0	40.0	-	-	0.0	-	7.7	-	-	5.5	-	-	-
150.0	50.0	-	-	11.3	-	2.0	-	-	0.0	-	-	-
150.0	60.0	-	-	5.4	-	3.6	-	-	19.8	-	-	-
150.0	70.0	-	-	0.0	-	1.8	-	-	5.0	-	-	-
150.0	80.0	-	-	1.8	-	0.0	-	-	0.0	-	-	-
150.0	90.0	-	-	-	-	5.6	-	-	2.7	-	-	-
150.0	100.0	-	-	-	-	-	-	-	5.1	-	-	-
153.0	16.0	-	-	-	-	-	-	-	2.5	-	-	-
153.0	20.0	-	-	4.2	-	4.4	-	-	0.0	-	-	-
153.0	30.0	-	-	0.0	-	4.4	-	-	-	-	-	-
153.0	50.0	-	-	0.0	-	1.9	-	-	-	-	-	-
157.0	10.0	-	-	0.0	-	8.8	-	-	3.8	-	-	-
157.0	20.0	-	-	0.0	-	3.9	-	-	0.0	-	-	-
157.0	30.0	-	-	3.7	-	6.2	-	-	-	-	-	-
157.0	40.0	-	-	0.0	-	3.9	-	-	-	-	-	-
157.0	50.0	-	-	0.0	-	4.2	-	-	-	-	-	-

*Notolychnus valdiviae*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	120.0	-	-	-	-	1.9	0.0	-	-	-	-	-
90.0	120.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-	-
93.0	90.0	0.0	0.0	0.0	0.0	4.0	0.0	-	-	-	-	-
100.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
103.0	70.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-

TABLE 4. (cont.)

*Notoscopelus resplendens*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 120.0	-	-	-	-	-	1.9	0.0	-	-	-	-	-
70.0 130.0	-	-	-	-	-	5.2	-	-	-	-	-	-
90.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	-	-	-	-
90.0 120.0	0.0	0.0	0.0	14.4	3.5	-	-	-	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	5.4	0.0	10.0	0.0	-	-	-	-	-
97.0 80.0	0.0	0.0	4.9	12.8	3.3	0.0	0.0	0.0	-	-	-	-
97.0 90.0	0.0	0.0	0.0	1.8	3.6	11.3	0.0	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	-	-	-	-	-

*Stenobrachius leucopsarus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 45.0	-	-	-	-	-	-	4.9	-	-	-	-	-
40.0 50.0	-	-	-	-	-	-	1.9	0.0	-	-	-	-
40.0 60.0	-	-	-	-	-	-	156.4	0.0	-	-	-	-
40.0 100.0	-	-	-	-	-	-	8.0	-	-	-	-	-
43.0 60.0	-	-	-	-	-	-	15.4	0.0	-	-	-	-
47.0 55.0	-	-	-	-	-	-	6.3	-	-	-	-	-
50.0 55.0	-	-	-	-	-	-	1.5	-	-	-	-	-
50.0 60.0	-	-	-	-	-	-	1.6	0.0	-	-	-	-
50.0 70.0	-	-	-	-	-	-	2.7	0.0	-	-	-	-
50.0 90.0	-	-	-	-	-	-	4.8	-	-	-	-	-
53.0 54.0	-	-	-	-	-	-	87.8	-	-	-	-	-
53.0 64.0	-	-	-	-	-	-	2.8	-	-	-	-	-
57.0 64.0	-	-	-	-	-	-	4.0	-	-	-	-	-
60.0 60.0	1.8	-	-	24.7	7.2	1.9	1.6	0.0	0.0	0.0	0.0	-
60.0 70.0	-	-	-	0.0	3.7	5.1	0.0	0.0	3.9	0.0	0.0	-
60.0 80.0	-	-	-	43.6	14.7	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 90.0	-	-	-	0.0	25.5	0.0	0.0	0.0	0.0	-	0.0	-
60.0 100.0	-	-	-	3.5	7.2	3.5	0.0	-	-	-	0.0	-
60.0 110.0	-	-	-	3.7	37.2	0.0	0.0	-	-	-	-	-
61.0 55.0	56.2	-	-	10.2	0.0	3.2	0.0	-	-	-	-	-
63.0 55.0	-	-	-	-	-	-	-	0.0	-	-	-	-
63.0 57.0	3.4	-	-	39.0	25.8	58.3	4.2	0.0	-	-	3.9	-
63.0 67.0	12.8	-	-	7.4	-	10.2	0.0	-	-	-	-	-
67.0 50.0	-	-	-	-	-	-	-	0.0	-	-	5.6	-
67.0 55.0	3.8	-	-	7.9	22.0	10.7	0.0	0.0	-	-	9.7	-
67.0 65.0	0.0	-	-	34.2	6.8	3.7	1.8	0.0	-	-	0.0	-
70.0 51.0	-	-	-	-	-	-	-	0.0	-	-	20.9	-
70.0 55.0	19.4	-	-	4.7	56.1	0.0	0.0	-	-	-	-	-
70.0 60.0	56.3	-	-	44.8	27.0	12.7	0.0	0.0	0.0	0.0	0.0	-
70.0 70.0	16.7	-	-	7.3	0.0	0.0	0.0	0.0	0.0	0.0	4.8	-
70.0 80.0	0.0	-	-	3.9	38.4	385.8	3.5	0.0	-	0.0	0.0	-

TABLE 4. (cont.)

*Stenobrachius leucopsarus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	90.0	0.0	-	176.0	22.9	29.0	0.0	0.0	-	0.0	-	-
70.0	100.0	-	-	36.4	0.0	0.0	0.0	-	-	-	-	-
70.0	110.0	-	-	0.0	1.7	0.0	0.0	-	-	-	-	-
73.0	51.0	626.5	-	65.2	4.0	0.0	0.0	-	-	-	-	-
73.0	61.0	4.3	-	429.6	26.4	1.8	10.5	-	-	-	-	-
77.0	50.0	-	-	-	-	-	-	0.0	-	0.0	0.8	-
77.0	55.0	22.1	-	44.6	93.6	61.2	0.0	0.0	-	0.0	9.2	-
77.0	65.0	1.7	-	45.2	21.7	60.0	0.0	0.0	-	0.0	0.0	27.1
80.0	51.0	-	-	-	-	-	0.0	-	0.0	-	0.0	24.8
80.0	55.0	4.1	30.5	72.0	10.7	0.0	0.0	-	0.0	-	0.0	-
80.0	60.0	19.4	0.0	27.0	-	0.0	-	0.0	0.0	-	0.0	0.0
80.0	70.0	0.0	63.5	50.7	-	33.0	0.0	0.0	0.0	-	0.0	-
80.0	80.0	0.0	1.6	0.0	-	0.0	0.0	0.0	0.0	-	0.0	7.7
80.0	90.0	1.7	30.9	2.0	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0	100.0	-	234.2	21.2	-	0.0	0.0	-	0.0	-	0.0	-
80.0	110.0	-	3.8	18.9	-	3.2	0.0	-	-	-	-	-
80.0	130.0	-	53.8	14.5	-	-	-	-	-	-	-	13.4
83.0	43.0	-	-	-	-	-	-	-	0.0	-	3.6	-
83.0	55.0	-	28.6	414.5	24.5	-	-	-	0.0	-	-	-
83.0	60.0	25.7	3.3	207.2	25.5	-	-	-	0.0	-	-	-
83.0	70.0	22.2	-	39.3	95.9	-	-	-	-	-	-	-
83.0	80.0	0.0	-	129.2	-	0.0	-	-	-	-	-	-
83.0	90.0	0.0	-	6.4	-	0.0	-	-	-	-	-	-
85.0	38.0	-	13.9	-	-	-	-	0.0	0.0	-	0.0	32.7
85.0	40.0	-	46.8	-	-	-	4.7	0.0	0.0	-	2.9	4.7
85.0	50.0	-	4.0	-	-	-	-	0.0	0.0	-	10.0	3.1
85.0	70.0	-	20.1	-	-	-	-	0.0	-	-	-	-
85.0	80.0	-	33.3	-	-	-	-	-	-	-	-	-
85.0	90.0	-	-	-	-	-	-	0.0	-	-	-	-
87.0	35.0	199.6	33.4	49.8	24.9	-	-	-	-	-	-	-
87.0	40.0	168.1	128.0	221.5	76.0	-	-	-	-	-	-	-
87.0	50.0	-	-	707.6	4.1	0.0	-	-	-	-	-	-
87.0	60.0	-	-	334.4	0.0	0.0	-	-	-	-	-	-
87.0	70.0	2.1	-	22.9	3.4	0.0	-	-	-	-	-	-
87.0	80.0	0.0	-	30.3	11.6	0.0	-	-	-	-	-	-
87.0	90.0	0.0	-	285.1	28.5	2.5	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	0.0	0.0	0.0	2.9	-
90.0	30.0	108.9	148.7	86.1	23.4	7.6	0.0	0.0	0.0	0.0	0.0	-
90.0	37.0	79.9	40.3	78.7	21.8	1.8	0.0	0.0	0.0	0.0	0.0	4.0
90.0	45.0	120.8	506.3	842.5	307.3	0.0	0.0	0.0	0.0	0.0	0.0	6.4
90.0	53.0	10.9	6.7	66.4	84.4	0.0	2.0	0.0	0.0	0.0	0.0	1.7
90.0	60.0	43.9	5.4	4.2	68.6	3.2	1.8	0.0	0.0	0.0	0.0	0.0
90.0	70.0	0.0	41.3	65.8	3.5	0.0	0.0	0.0	0.0	-	0.0	-
90.0	80.0	0.0	0.0	10.4	6.2	0.0	0.0	0.0	-	-	-	-
90.0	90.0	0.0	0.0	29.0	12.5	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	0.0	1.4	0.0	3.5	0.0	0.0	-	-	-	-



TABLE 4. (cont.)

*Stenobrachius leucopsarus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	110.0	0.0	0.0	0.0	3.9	0.0	0.0	-	-	-	-	-
93.0	30.0	210.0	100.8	38.3	4.9	-	1.8	0.0	0.0	0.0	-	80.5
93.0	40.0	91.0	16.2	129.7	5.0	26.2	2.0	0.0	0.0	0.0	-	38.9
93.0	50.0	0.0	12.5	62.2	45.2	27.0	0.0	0.0	0.0	0.0	-	0.0
93.0	60.0	81.4	0.0	7.1	8.7	3.0	-	0.0	-	-	-	-
93.0	70.0	84.3	6.0	3.6	4.0	1.0	0.0	0.0	-	-	-	-
93.0	80.0	0.0	4.7	23.7	0.0	0.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	1.9	0.0	0.0	0.0	0.0	-	-	-	-	-
97.0	30.0	-	-	69.6	-	-	-	0.0	0.0	0.0	-	26.3
97.0	32.0	15.5	1.8	69.6	0.0	3.0	0.0	0.0	0.0	0.0	-	-
97.0	40.0	19.6	39.6	132.3	16.0	1.4	0.0	0.0	0.0	0.0	-	6.0
97.0	50.0	7.0	25.8	9.6	55.5	3.7	0.0	0.0	0.0	0.0	-	0.0
97.0	60.0	19.6	8.3	14.4	5.7	26.7	0.0	0.0	-	-	-	-
97.0	70.0	3.1	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-
97.0	80.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0	90.0	0.0	0.0	3.5	1.8	0.0	0.0	-	-	-	-	-
100.0	30.0	36.1	0.0	17.0	158.3	16.9	-	0.0	0.0	0.0	-	2.2
100.0	40.0	13.5	28.6	76.6	83.3	0.0	0.0	0.0	0.0	0.0	-	-
100.0	50.0	0.0	1.6	323.6	21.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
100.0	60.0	9.6	4.9	8.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	1.8	28.1	4.6	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	80.0	0.0	6.9	1.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-
103.0	35.0	-	29.2	8.2	0.0	1.6	0.0	-	0.0	0.0	0.0	-
103.0	40.0	-	16.7	3.5	0.0	4.7	-	-	0.0	0.0	0.0	-
103.0	50.0	-	5.6	0.0	2.0	1.7	-	-	-	-	-	-
103.0	60.0	-	6.7	2.2	6.3	0.0	-	-	-	-	-	-
103.0	70.0	-	38.8	1.7	0.0	0.0	-	-	-	-	-	-
103.0	80.0	-	17.1	3.7	0.0	-	-	-	-	-	-	-
105.0	35.0	11.3	-	-	-	-	-	0.0	-	-	-	-
105.0	40.0	26.7	-	-	-	-	-	0.0	-	-	-	-
105.0	50.0	8.1	-	-	-	-	-	0.0	-	-	-	-
105.0	60.0	13.4	-	-	-	-	-	0.0	-	-	-	-
105.0	70.0	11.8	-	-	-	-	-	-	-	-	-	-
105.0	80.0	6.7	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	2.7	0.0	51.2	0.0	-	-	0.0	0.0	0.0	-
107.0	40.0	-	4.9	1.8	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0	50.0	-	2.9	0.0	0.0	3.3	-	-	-	-	-	-
107.0	70.0	1.7	0.0	0.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	18.0	0.0	2.0	-	-	-	-	-	-
110.0	35.0	16.0	0.0	11.9	3.9	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	15.8	2.6	21.6	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	50.0	8.6	0.0	3.5	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	0.0	4.2	0.0	0.0	-	0.0	0.0	0.0	-	-
110.0	80.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
113.0	35.0	3.1	27.4	4.9	0.0	1.7	0.0	-	-	-	-	-
113.0	40.0	0.0	-	22.3	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Stenobrachius leucopsarus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0 50.0	0.0	0.0	2.5	5.6	0.0	0.0	-	-	-	-	-	-
113.0 60.0	0.0	0.0	5.3	2.1	0.0	0.0	-	-	-	-	-	-
113.0 70.0	0.0	0.0	5.1	0.0	0.0	0.0	-	-	-	-	-	-
117.0 35.0	0.0	0.0	10.0	0.0	0.0	1.9	-	-	-	-	-	-
117.0 40.0	0.0	7.5	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0 50.0	0.0	0.0	0.0	3.7	3.9	0.0	-	-	-	-	-	-
117.0 60.0	0.0	1.9	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 70.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	0.0	-

*Triphoturus mexicanus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0 50.0	-	-	-	-	-	-	-	0.0	-	2.2	0.0	-
80.0 51.0	-	-	-	-	-	-	0.0	-	0.0	-	2.9	0.0
80.0 55.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	-	0.0	-	0.0	-
80.0 60.0	0.0	0.0	0.0	0.0	-	0.0	-	3.0	0.0	-	0.0	0.0
80.0 70.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	1.3	-	0.0	-
80.0 80.0	0.0	0.0	0.0	0.0	-	0.0	0.0	3.0	0.0	-	0.0	0.0
80.0 90.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	2.7	-	0.0	-
80.0 110.0	-	0.0	0.0	0.0	-	25.8	0.0	-	-	-	0.0	-
83.0 43.0	-	-	-	-	-	-	-	-	-	-	0.0	4.5
83.0 60.0	0.0	0.0	-	0.0	0.0	-	-	-	2.2	-	-	-
83.0 90.0	0.0	-	-	0.0	-	2.0	-	-	-	-	-	-
85.0 38.0	-	-	-	-	-	-	47.4	0.0	2.0	-	1.2	0.0
85.0 40.0	-	-	0.0	-	-	-	-	15.8	6.0	-	2.9	0.0
85.0 50.0	-	-	0.0	-	-	-	-	0.0	1.8	-	0.0	0.0
85.0 60.0	-	-	-	-	-	-	-	0.0	2.0	-	0.0	-
85.0 70.0	-	-	0.0	-	-	-	-	5.4	-	-	-	-
85.0 80.0	-	-	0.0	-	-	-	-	4.6	-	-	-	-
87.0 50.0	-	-	-	0.0	1.4	0.0	-	-	-	-	-	-
87.0 60.0	0.0	-	0.0	0.0	0.0	9.3	-	-	-	-	-	-
87.0 70.0	0.0	-	0.0	0.0	0.0	11.1	-	-	-	-	-	-
87.0 80.0	0.0	-	0.0	0.0	0.0	31.6	-	-	-	-	-	-
87.0 90.0	0.0	-	0.0	0.0	0.0	5.0	-	-	-	-	-	-
90.0 28.0	-	-	-	-	-	-	-	2.6	2.7	12.1	0.0	-
90.0 30.0	0.0	0.0	0.0	1.5	0.0	60.5	0.0	9.0	0.0	56.8	2.8	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	17.6	26.4	10.7	0.0	3.2	11.8	0.0
90.0 45.0	0.0	0.0	0.0	0.0	5.9	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	9.8	2.0	1.6	6.2	0.0	9.6	2.3	0.0	0.0
90.0 60.0	0.0	0.0	0.0	4.2	2.0	0.0	1.8	2.9	10.9	2.0	9.2	0.0
90.0 70.0	0.0	0.0	0.0	0.0	5.3	1.7	14.3	5.4	0.0	-	0.0	-
90.0 80.0	0.0	0.0	0.0	0.0	2.1	3.6	2.0	8.8	-	-	-	-
90.0 90.0	0.0	0.0	0.0	0.0	2.4	0.0	3.5	5.7	-	-	-	-
90.0 100.0	0.0	0.0	0.0	1.4	4.4	15.6	11.9	0.0	-	-	-	-
90.0 110.0	0.0	0.0	0.0	11.9	3.9	10.9	3.6	-	-	-	-	-

TABLE 4. (cont.)

*Tripnoturus mexicanus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	120.0	0.0	0.0	9.6	0.0	-	-	-	-	-	-	-
93.0	27.0	-	-	-	-	-	-	23.0	0.0	4.4	-	0.0
93.0	30.0	0.0	0.0	4.6	0.0	-	1.8	7.6	9.1	31.0	-	7.3
93.0	40.0	0.0	0.0	0.0	0.0	7.5	2.0	10.1	0.0	2.4	-	2.4
93.0	50.0	0.0	0.0	0.0	0.0	16.9	10.4	110.0	0.0	4.1	-	0.0
93.0	60.0	0.0	0.0	3.5	1.7	0.0	-	0.0	-	-	-	-
93.0	70.0	0.0	0.0	7.2	0.0	0.0	-	3.6	-	-	-	-
93.0	80.0	0.0	0.0	0.0	31.3	8.0	0.0	9.6	-	-	-	-
93.0	90.0	0.0	0.0	5.4	27.3	8.0	0.0	-	-	-	-	-
97.0	30.0	-	-	-	-	-	-	10.2	0.0	11.4	-	0.0
97.0	32.0	0.0	0.0	4.3	0.0	28.1	1.8	122.1	24.7	13.3	-	-
97.0	40.0	0.0	0.0	1.9	14.0	37.4	0.0	51.2	15.0	7.0	-	0.0
97.0	50.0	0.0	0.0	0.0	55.5	38.6	1.8	10.1	16.4	5.4	-	0.0
97.0	60.0	0.0	0.0	12.6	19.0	1.2	6.5	39.5	-	-	-	-
97.0	70.0	0.0	0.0	3.4	0.0	20.9	0.0	366.8	-	-	-	-
97.0	80.0	0.0	0.0	20.8	39.6	18.2	1.8	17.1	-	-	-	-
97.0	90.0	0.0	0.0	1.8	21.6	14.6	22.2	-	-	-	-	-
100.0	29.0	-	-	-	-	-	-	0.0	1.2	1.2	-	0.0
100.0	30.0	0.0	0.0	0.0	5.2	59.1	-	3.6	33.6	1.2	-	0.0
100.0	40.0	0.0	0.0	3.5	3.6	108.9	5.8	37.2	82.9	65.4	-	-
100.0	50.0	0.0	0.0	3.7	0.0	18.6	5.4	43.6	2.6	0.0	4.9	2.8
100.0	60.0	0.0	0.0	0.0	0.0	0.0	5.4	65.5	41.9	4.4	2.7	0.0
100.0	70.0	0.0	0.0	6.1	44.6	30.6	2.6	5.5	33.9	45.7	14.3	0.0
100.0	80.0	0.0	0.0	0.0	0.0	106.7	26.6	-	7.9	40.8	-	-
100.0	90.0	0.0	0.0	32.3	0.0	7.4	2.4	-	23.3	4.2	-	-
100.0	100.0	-	0.0	16.1	3.6	-	27.2	-	-	-	-	-
100.0	110.0	-	-	1.5	19.4	-	-	-	-	-	-	-
100.0	120.0	-	-	0.0	28.1	-	-	-	-	-	-	-
103.0	30.0	-	-	-	-	-	-	29.0	-	0.8	1.4	-
103.0	35.0	-	0.0	0.0	4.1	29.0	-	-	59.0	37.0	4.2	-
103.0	40.0	0.0	0.0	0.0	3.8	58.3	-	-	14.6	20.7	0.0	-
103.0	50.0	-	0.0	28.0	5.9	3.4	-	-	-	-	-	-
103.0	60.0	0.0	0.0	26.6	57.0	12.0	-	-	-	-	-	-
103.0	70.0	0.0	0.0	27.0	20.1	31.3	-	-	-	-	-	-
103.0	80.0	0.0	8.6	23.8	17.4	-	-	-	-	-	-	-
105.0	32.0	-	-	-	-	-	-	31.1	-	-	-	-
105.0	35.0	0.0	-	-	-	-	-	35.6	-	-	-	-
105.0	40.0	0.0	-	-	-	-	-	56.1	-	-	-	-
105.0	50.0	0.0	-	-	-	-	-	37.3	-	-	-	-
105.0	60.0	0.0	-	-	-	-	-	4.7	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	124.2	13.3	2.4	-
107.0	35.0	-	-	19.2	0.0	7.3	-	-	19.0	21.4	1.6	-
107.0	40.0	0.0	0.0	32.6	44.8	18.6	-	-	98.1	24.9	0.0	-
107.0	50.0	0.0	0.0	33.0	7.2	3.3	-	-	-	-	-	-
107.0	60.0	0.0	0.0	2.2	23.4	0.0	-	-	-	-	-	-
107.0	70.0	0.0	2.6	8.0	13.8	13.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Triphoturus mexicanus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	80.0	0.0	2.5	14.8	20.5	41.6	-	-	-	-	-	-
110.0	33.0	-	-	-	-	-	-	-	1.7	11.8	42.6	13.2
110.0	35.0	0.0	0.0	0.0	0.0	3.6	-	36.0	40.7	2.9	5.3	15.4
110.0	40.0	0.0	0.0	0.0	6.5	9.5	-	171.0	14.0	4.2	14.1	6.8
110.0	50.0	1.7	2.4	1.7	62.4	14.6	-	23.4	109.1	26.7	12.9	0.0
110.0	60.0	0.0	0.0	5.3	76.1	20.5	-	32.2	174.9	188.4	27.5	2.8
110.0	70.0	0.0	0.0	25.3	8.5	13.0	-	-	-	-	-	-
110.0	80.0	0.0	0.0	19.6	4.0	18.7	59.5	-	-	-	-	-
110.0	90.0	0.0	4.9	5.4	12.6	16.3	36.4	-	-	-	-	-
110.0	100.0	0.0	2.3	0.0	7.4	0.0	-	-	-	-	-	-
110.0	110.0	0.0	0.0	0.0	5.7	3.4	-	-	-	-	-	-
113.0	35.0	0.0	5.5	0.0	0.0	6.6	-	-	-	-	-	-
113.0	40.0	0.0	-	0.0	0.0	9.5	-	-	-	-	-	-
113.0	50.0	0.0	0.0	0.0	18.8	15.9	-	-	-	-	-	-
113.0	60.0	0.0	0.0	1.9	74.0	7.9	-	-	-	-	-	-
113.0	70.0	0.0	0.0	18.7	11.3	0.0	-	-	-	-	-	-
113.0	70.0	0.0	0.0	21.5	20.8	0.0	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	1.3	0.0	6.3	1.3	0.0
115.0	30.0	-	-	-	-	-	-	3.8	1.4	0.0	6.0	1.5
115.0	35.0	-	-	-	-	-	-	15.8	43.4	0.0	5.3	0.0
115.0	40.0	-	-	-	-	-	-	36.2	15.8	22.9	2.7	7.7
115.0	50.0	-	-	-	-	-	-	34.9	-	-	-	-
115.0	60.0	-	-	-	-	-	-	75.4	-	-	-	-
117.0	35.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
117.0	40.0	0.0	0.0	3.2	3.4	18.4	-	-	-	-	-	-
117.0	50.0	2.0	0.0	13.0	3.9	54.5	-	-	-	-	-	-
117.0	60.0	2.3	0.0	2.2	9.5	42.5	-	-	-	-	-	-
117.0	70.0	0.0	5.3	2.2	16.6	59.7	-	-	-	-	-	-
120.0	25.0	-	7.9	-	-	-	-	2.0	-	0.0	0.0	0.0
120.0	30.0	-	-	-	-	-	-	47.8	-	3.2	0.0	0.0
120.0	35.0	0.0	0.0	2.3	0.0	0.0	0.0	49.7	-	0.0	0.0	0.0
120.0	45.0	0.0	0.0	4.2	0.0	11.4	31.4	7.3	-	11.1	6.0	0.0
120.0	50.0	0.0	2.6	9.2	0.0	6.7	6.7	73.3	-	22.7	2.8	0.0
120.0	60.0	0.0	2.8	18.3	32.8	7.0	16.5	79.5	-	278.8	29.8	-
120.0	70.0	0.0	7.8	8.5	43.5	14.9	67.7	126.2	-	309.2	16.2	-
120.0	80.0	0.0	0.0	9.9	8.2	23.9	15.1	25.1	337.1	10.7	65.8	-
120.0	90.0	0.0	0.0	3.8	1.9	7.3	10.6	100.7	47.1	24.3	19.5	-
120.0	100.0	0.0	5.0	0.0	1.6	0.0	-	-	-	-	-	-
120.0	110.0	0.0	0.0	3.2	0.0	1.8	-	-	-	-	-	-
123.0	37.0	-	-	-	-	-	-	0.0	0.6	-	0.0	2.2
123.0	40.0	3.5	0.0	6.9	36.5	-	7.8	5.2	6.8	-	43.0	1.3
123.0	50.0	0.0	0.0	115.2	77.0	-	54.9	85.8	5.1	-	-	-
123.0	60.0	0.0	2.6	20.3	45.3	-	11.0	38.7	-	-	-	-
127.0	34.0	-	-	-	-	-	-	1.6	0.0	0.0	0.0	-
127.0	40.0	0.0	0.0	4.0	3.4	54.7	25.1	0.0	0.0	107.2	2.8	-
127.0	50.0	1.6	7.8	30.3	31.4	-	102.1	114.2	126.0	-	-	-
127.0	60.0	0.0	2.6	0.0	9.2	-	0.0	26.7	-	-	-	-



TABLE 4. (cont.)

*Triphoturus mexicanus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0	35.0	3.6	0.0	5.7	68.1	67.4	-	19.3	-	0.0	10.4	-
130.0	40.0	18.1	2.0	0.0	56.4	34.7	-	-	13.3	116.2	5.7	-
130.0	50.0	0.0	6.3	23.0	38.3	46.9	-	35.1	22.6	5.1	7.9	-
130.0	60.0	0.0	0.0	12.4	8.5	23.6	-	25.1	6.3	22.1	13.9	-
130.0	70.0	0.0	0.0	6.9	23.5	11.7	-	-	39.3	44.0	-	-
130.0	80.0	0.0	0.0	9.3	49.0	24.6	-	-	-	-	-	-
130.0	90.0	-	-	-	-	10.7	-	-	-	-	-	-
133.0	25.0	-	-	-	-	-	-	0.0	1.5	3.5	0.0	-
133.0	30.0	0.0	0.0	16.2	0.0	2.1	-	0.0	7.7	5.6	0.0	-
133.0	40.0	6.6	2.2	8.9	35.8	1.8	-	0.0	-	-	-	-
133.0	50.0	1.4	0.0	8.2	90.9	7.6	-	42.7	-	-	-	-
133.0	60.0	1.6	0.0	0.0	24.3	13.2	-	-	-	-	-	-
137.0	30.0	-	-	-	-	-	-	2.1	46.2	0.0	0.0	-
137.0	35.0	0.0	4.1	12.5	7.2	61.4	2.6	-	-	-	-	-
137.0	40.0	1.6	12.2	12.1	27.9	0.0	66.8	0.0	-	-	-	-
137.0	50.0	5.1	11.0	10.7	83.7	7.4	-	23.0	-	-	-	-
137.0	60.0	3.5	3.9	0.0	7.0	1.7	-	-	-	-	-	-
140.0	35.0	-	1.9	-	-	0.0	-	-	7.9	-	-	-
140.0	40.0	-	2.1	-	-	5.6	-	-	4.7	-	-	-
140.0	50.0	-	6.1	-	-	0.0	-	-	0.0	-	-	-
140.0	80.0	-	0.0	-	-	7.4	-	-	-	-	-	-
140.0	90.0	-	-	-	-	1.9	-	-	-	-	-	-
143.0	35.0	-	1.7	-	-	7.6	-	-	0.0	-	-	-
143.0	40.0	-	3.8	-	-	4.1	-	-	-	-	-	-
143.0	50.0	-	6.7	-	-	4.4	-	-	-	-	-	-
143.0	60.0	-	-	-	-	2.0	-	-	-	-	-	-
147.0	20.0	-	0.0	-	-	-	-	-	2.5	-	-	-
147.0	25.0	-	0.0	-	-	4.1	-	-	0.0	-	-	-
147.0	30.0	-	0.0	-	-	4.0	-	-	0.0	-	-	-
147.0	40.0	-	3.8	-	-	23.3	-	-	-	-	-	-
147.0	50.0	-	-	-	-	11.1	-	-	-	-	-	-
147.0	60.0	-	-	-	-	8.4	-	-	-	-	-	-
150.0	30.0	-	0.0	-	-	6.1	-	-	0.0	-	-	-
150.0	40.0	-	0.0	-	-	3.9	-	-	0.0	-	-	-
150.0	50.0	-	22.6	-	-	0.0	-	-	0.0	-	-	-
150.0	60.0	-	5.4	-	-	0.0	-	-	0.0	-	-	-
150.0	70.0	-	1.9	-	-	0.0	-	-	5.0	-	-	-
150.0	90.0	-	-	-	-	1.9	-	-	0.0	-	-	-
150.0	100.0	-	-	-	-	-	-	-	5.1	-	-	-
153.0	20.0	-	0.0	-	-	4.4	-	-	0.0	-	-	-
153.0	30.0	-	0.0	-	-	2.2	-	-	-	-	-	-
153.0	40.0	-	0.0	-	-	8.2	-	-	-	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	1.3	-	-	-

TABLE 4. (cont.)

*Diogenichthys spp.*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 80.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
93.0 70.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
97.0 70.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
100.0 40.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	-	-
103.0 80.0	8.8	-	0.0	1.8	0.0	-	-	-	-	-	-	-
107.0 40.0	0.0	-	0.0	1.8	0.0	0.0	-	-	0.0	0.0	0.0	-
107.0 80.0	0.0	-	0.0	0.0	2.3	0.0	-	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	0.0	26.6	0.0	0.0	-	-	-	-	-
127.0 60.0	2.2	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-

*Diogenichthys atlanticus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 60.0	0.0	-	-	0.0	0.0	3.2	3.3	0.0	-	0.0	0.0	-
70.0 120.0	-	-	-	-	-	1.9	0.0	-	-	-	-	-
73.0 61.0	0.0	-	-	7.2	1.8	0.0	0.0	-	-	-	-	-
80.0 100.0	-	0.0	1.4	0.0	-	0.0	0.0	-	6.8	-	3.3	-
80.0 110.0	-	0.0	0.0	0.0	-	0.0	3.5	-	-	-	-	-
80.0 120.0	-	1.7	0.0	0.0	-	-	-	-	-	-	-	-
83.0 90.0	0.0	-	-	1.6	-	0.0	-	-	-	-	-	-
85.0 80.0	-	-	5.0	-	-	-	-	0.0	-	-	-	-
85.0 90.0	-	-	2.4	-	-	-	-	-	-	-	-	-
87.0 40.0	0.0	-	-	0.0	0.0	-	-	-	-	-	-	-
87.0 60.0	2.1	-	-	0.0	0.0	0.0	-	-	-	-	-	-
87.0 70.0	0.0	-	-	0.0	0.0	6.6	-	-	-	-	-	-
87.0 80.0	0.0	-	-	0.0	0.0	44.3	-	-	-	-	-	-
90.0 53.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	1.8	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	1.9
90.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	-
90.0 80.0	14.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0 90.0	1.8	0.0	0.0	2.6	0.0	0.0	0.0	0.0	-	-	-	-
90.0 100.0	3.7	0.0	5.5	2.7	13.2	0.0	3.4	0.0	-	-	-	-
90.0 110.0	2.0	0.0	3.3	4.5	0.0	0.0	1.8	2.8	-	-	-	-
90.0 120.0	0.0	3.8	0.0	6.4	15.8	-	-	-	-	-	-	-
93.0 30.0	0.0	0.0	0.0	1.5	0.0	-	0.0	0.0	0.0	0.0	-	0.0
93.0 40.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	1.8	1.7	0.0	-	0.0	0.0	0.0	-	-
93.0 80.0	0.0	7.6	4.7	0.0	5.2	0.0	4.3	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	5.4	18.9	6.0	1.9	-	0.0	0.0	-	-
97.0 32.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0 40.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0 50.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
97.0 60.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	3.2	0.0	20.8	3.3	3.6	0.0	2.6	-	-	-	-

TABLE 4. (cont.)

*Diogenichthys atlanticus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	90.0	0.0	0.0	3.5	12.6	4.9	0.0	-	-	-	-	-
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
100.0	60.0	1.8	0.0	4.6	0.0	9.0	0.0	0.0	0.0	0.0	-	0.0
100.0	80.0	0.0	0.0	10.4	0.0	18.4	0.0	-	0.0	0.0	0.0	-
100.0	90.0	61.9	0.0	18.5	5.0	0.0	0.0	-	0.0	0.0	-	-
100.0	100.0	11.3	0.0	0.0	0.0	-	0.0	-	-	-	-	-
100.0	110.0	0.0	-	6.0	7.8	-	-	-	-	-	-	-
100.0	120.0	0.0	-	0.0	4.0	-	-	-	-	-	-	-
103.0	50.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-	-	-
103.0	60.0	0.0	0.0	0.0	8.4	1.7	-	-	-	-	-	-
103.0	70.0	-	0.0	0.0	0.0	7.4	-	-	-	-	-	-
103.0	80.0	0.0	0.0	0.0	3.9	-	-	-	-	-	-	-
105.0	90.0	-	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	0.0	0.0	1.7	0.0	-	-	0.0	0.0	0.0	-
107.0	60.0	3.3	0.0	0.0	0.0	0.0	-	-	-	-	-	-
107.0	70.0	0.0	0.0	4.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	1.6	0.0	0.0	-	-	-	-	-	-
110.0	50.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	2.1	0.0	0.0	0.0	0.0	-	-	-	-	-	-
110.0	80.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	0.0	4.2	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	0.0	0.0	0.0	3.0	-	-	-	-	-	-
110.0	110.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	35.0	0.0	0.0	0.0	0.0	1.7	-	-	-	-	-	-
113.0	60.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	70.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	50.0	3.9	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	60.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0	80.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
123.0	60.0	1.5	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-

*Diogenichthys laternatus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0	80.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	-	-	-	-
97.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	-	-	-	-
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	23.0
100.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	-	18.1	0.0	-	-
100.0	100.0	0.0	-	0.0	0.0	-	0.0	-	-	-	-	-
103.0	35.0	-	5.0	0.0	0.0	0.0	-	-	0.0	1.1	0.0	-
103.0	40.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
105.0	35.0	0.0	-	-	-	-	-	2.5	-	-	-	-

TABLE 4. (cont.)

*Diogenichthys laternatus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	32.0	-	-	-	-	-	-	-	2.8	0.0	0.0	-
110.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	2.6	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	58.4
110.0	80.0	0.0	0.0	2.0	0.0	0.0	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	5.4	1.4	0.0	0.0	-	-	-	-	-
113.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
115.0	40.0	-	-	-	-	-	-	0.0	4.5	0.0	0.0	0.0
117.0	60.0	0.0	0.0	4.4	0.0	0.0	-	-	-	-	-	-
117.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	45.0	6.5	7.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	9.5
120.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	-	14.2	5.6	15.5
120.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	-	0.0	48.0	-
120.0	70.0	2.2	0.0	2.6	0.0	0.0	0.0	12.6	-	10.5	2.5	-
120.0	80.0	2.0	0.0	5.4	0.0	0.0	0.0	10.0	83.5	10.7	0.0	-
120.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	5.6	-
120.0	100.0	9.4	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	110.0	68.6	-	0.0	0.0	3.5	-	-	-	-	98.7	6.7
123.0	40.0	3.5	3.7	0.0	0.0	-	0.0	0.0	6.8	-	-	-
123.0	50.0	2.9	5.3	0.0	0.0	-	0.0	3.3	0.0	-	-	-
123.0	60.0	3.6	0.0	3.8	0.0	-	0.0	19.4	-	-	-	-
127.0	34.0	-	-	3.4	0.0	-	-	0.0	0.0	0.0	1.4	-
127.0	40.0	3.3	21.7	2.0	1.7	5.1	0.0	0.0	0.0	26.8	11.4	-
127.0	50.0	0.0	1.8	4.7	1.7	-	1.8	0.0	0.0	-	-	-
127.0	60.0	4.4	0.0	0.0	4.3	-	0.0	12.2	32.9	-	-	-
130.0	35.0	0.0	2.4	0.0	0.0	9.3	-	0.0	-	0.0	2.6	-
130.0	40.0	11.2	29.0	0.0	0.0	11.8	-	2.3	3.3	37.7	11.5	-
130.0	50.0	12.4	0.0	1.7	0.0	8.4	-	7.5	0.0	5.1	0.0	-
130.0	60.0	0.0	0.0	17.4	0.0	2.6	-	-	0.0	0.0	27.8	-
130.0	70.0	15.5	16.6	12.0	11.8	5.0	-	-	16.9	0.0	-	-
130.0	80.0	2.1	1.7	3.7	28.0	22.7	-	-	-	5.6	0.0	-
133.0	30.0	1.8	0.0	1.6	0.0	0.0	-	0.0	7.7	-	-	-
133.0	40.0	28.0	186.7	6.5	2.8	0.0	-	4.7	-	-	-	-
133.0	50.0	25.6	25.3	0.0	5.0	1.9	-	2.5	-	-	-	-
133.0	60.0	21.8	15.9	8.9	0.0	3.8	-	-	-	-	-	-
137.0	30.0	-	-	3.8	-	-	-	0.0	10.9	6.1	2.8	-
137.0	35.0	0.0	0.0	3.6	0.0	9.9	0.0	-	-	-	-	-
137.0	40.0	4.9	42.4	15.7	0.0	2.1	50.5	2.3	-	-	-	-
137.0	50.0	13.7	22.1	57.2	3.7	2.8	-	6.9	-	-	-	-
137.0	60.0	10.3	113.8	7.7	0.0	3.4	-	-	-	-	-	-
140.0	35.0	-	-	1.9	-	0.0	-	-	0.0	-	-	-
140.0	40.0	-	-	6.2	-	0.0	-	-	7.0	-	-	-
140.0	50.0	-	-	0.0	-	0.0	-	-	2.9	-	-	-
140.0	60.0	-	-	5.7	-	3.8	-	-	0.0	-	-	-
140.0	70.0	-	-	1.9	-	0.0	-	-	12.8	-	-	-
140.0	80.0	-	-	0.0	-	3.7	-	-	-	-	-	-



TABLE 4. (cont.)

*Diogenichthys laternatus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
140.0	90.0	-	-	-	-	3.8	-	-	-	-	-	-
143.0	30.0	-	0.0	-	-	0.0	-	-	13.8	-	-	-
143.0	35.0	-	3.5	-	-	3.8	-	-	5.6	-	-	-
143.0	40.0	-	11.4	-	-	102.0	-	-	-	-	-	-
143.0	50.0	-	4.5	-	-	4.4	-	-	-	-	-	-
143.0	60.0	-	-	-	-	2.0	-	-	-	-	-	-
147.0	20.0	-	1.6	-	-	-	-	-	39.8	-	-	-
147.0	25.0	-	0.0	-	-	0.0	-	-	1.5	-	-	-
147.0	30.0	-	0.0	-	-	163.2	-	-	16.2	-	-	-
147.0	40.0	-	3.8	-	-	50.4	-	-	-	-	-	-
147.0	50.0	-	-	-	-	14.8	-	-	-	-	-	-
150.0	19.0	-	-	-	-	-	-	-	23.2	-	-	-
150.0	25.0	-	41.7	-	-	79.5	-	-	10.0	-	-	-
150.0	30.0	-	12.1	-	-	6.1	-	-	2.4	-	-	-
150.0	40.0	-	0.0	-	-	11.6	-	-	2.8	-	-	-
150.0	50.0	-	26.3	-	-	4.1	-	-	0.0	-	-	-
150.0	60.0	-	9.1	-	-	3.6	-	-	11.3	-	-	-
150.0	70.0	-	23.2	-	-	5.3	-	-	15.0	-	-	-
150.0	80.0	-	0.0	-	-	2.0	-	-	2.9	-	-	-
150.0	90.0	-	-	-	-	1.9	-	-	0.0	-	-	-
150.0	100.0	-	-	-	-	-	-	-	5.1	-	-	-
153.0	16.0	-	-	-	-	-	-	-	62.0	-	-	-
153.0	20.0	-	41.6	-	-	184.8	-	-	2.7	-	-	-
153.0	30.0	-	8.0	-	-	8.8	-	-	-	-	-	-
153.0	40.0	-	7.9	-	-	8.2	-	-	-	-	-	-
153.0	50.0	-	12.9	-	-	1.9	-	-	-	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	57.5	-	-	-
157.0	20.0	-	5.9	-	-	250.9	-	-	10.4	-	-	-
157.0	30.0	-	152.5	-	-	0.0	-	-	-	-	-	-
157.0	40.0	-	18.1	-	-	66.0	-	-	-	-	-	-
157.0	50.0	-	0.0	-	-	16.7	-	-	-	-	-	-

*Electrona rissoi*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	80.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-
90.0	110.0	0.0	4.9	0.0	0.0	0.0	0.0	-	-	-	-	-
93.0	80.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	0.0	1.8	0.0	2.0	0.0	-	-	-	-	-
97.0	80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-
97.0	90.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0	90.0	9.1	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-
100.0	100.0	0.0	0.0	4.8	0.0	-	0.0	-	0.0	-	-	-
100.0	110.0	-	-	1.5	0.0	-	0.0	-	-	-	-	-
103.0	70.0	0.0	0.0	1.7	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Electrona rissoi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
105.0 80.0	-	1.7	-	-	-	-	-	-	-	-	-	-
107.0 70.0	0.0	-	0.0	0.0	1.7	0.0	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	4.9	0.0	0.0	-	-	-	-	-	-
110.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	3.0	0.0	0.0

*Gonichthys tenuiculus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6
120.0 50.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	-	0.0	0.0	0.0
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	0.0	2.2	-
120.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	-
120.0 90.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	2.7	0.0	2.7	0.0	-
120.0 100.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	0.0	-	-
120.0 110.0	2.1	-	0.0	1.6	0.0	0.0	-	-	-	-	-	-
123.0 50.0	0.0	0.0	0.0	0.0	0.8	-	0.0	0.0	0.0	-	-	-
127.0 50.0	0.0	0.0	0.0	2.3	0.0	-	0.0	0.0	0.0	-	-	-
127.0 60.0	0.0	0.0	0.0	0.0	3.5	-	0.0	0.0	-	-	-	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.9	-	-	0.0	3.1	0.0	-
130.0 50.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0 60.0	0.0	0.0	2.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0 70.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	0.0	3.1	-	-
130.0 80.0	0.0	0.0	0.0	1.9	15.8	3.8	-	-	-	-	-	-
130.0 90.0	-	-	-	-	-	3.6	-	-	-	-	-	-
133.0 40.0	1.6	1.8	0.0	0.0	1.0	0.0	-	0.0	-	-	-	-
133.0 50.0	0.0	0.0	0.0	4.1	0.0	0.0	-	0.0	-	-	-	-
133.0 60.0	0.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
137.0 40.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-	-	-	-
137.0 50.0	1.7	0.0	0.0	0.0	1.9	1.0	-	0.0	-	-	-	-
137.0 60.0	0.0	7.0	0.0	1.9	3.5	3.4	-	-	0.0	-	-	-
140.0 40.0	-	-	2.1	-	-	0.0	-	-	0.0	-	-	-
140.0 60.0	-	-	1.9	-	-	0.0	-	-	0.0	-	-	-
143.0 35.0	-	-	1.7	-	-	0.0	-	-	0.0	-	-	-
143.0 40.0	-	-	1.9	-	-	0.0	-	-	0.0	-	-	-
143.0 60.0	-	-	-	-	-	2.0	-	-	-	-	-	-
150.0 60.0	-	-	3.6	-	-	0.0	-	-	0.0	-	-	-
150.0 70.0	-	-	3.9	-	-	0.0	-	-	0.0	-	-	-
150.0 90.0	-	-	-	-	-	1.9	-	-	0.0	-	-	-
150.0 100.0	-	-	-	-	-	0.0	-	-	5.1	-	-	-
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-
157.0 50.0	-	-	0.0	-	-	2.1	-	-	-	-	-	-

TABLE 4. (cont.)

*Hygophum spp.*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 70.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	-	-	-	-
100.0 100.0	0.0	-	0.0	0.0	0.0	-	2.3	-	-	-	-	-
110.0 33.0	-	-	-	-	-	-	-	-	0.0	1.5	0.0	0.0
120.0 70.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	-	5.2	0.0	-
120.0 80.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
127.0 60.0	0.0	0.0	2.6	0.0	1.4	-	0.0	0.0	-	-	-	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	3.4	0.0	-
130.0 60.0	0.0	0.0	0.0	0.0	3.4	0.0	-	0.0	0.0	0.0	2.8	-
130.0 70.0	1.5	1.7	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-
130.0 80.0	0.0	0.0	0.0	0.0	3.5	1.9	-	-	-	-	-	-
133.0 50.0	0.0	0.0	0.0	0.0	0.9	0.0	-	0.0	-	-	-	-
133.0 60.0	0.0	0.0	0.0	0.0	3.7	0.0	-	-	-	-	-	-
137.0 50.0	0.0	0.0	0.0	0.0	1.9	0.0	-	2.3	-	-	-	-
137.0 60.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-	-
140.0 40.0	-	-	2.1	-	-	0.0	-	-	0.0	-	-	-
147.0 30.0	-	-	0.0	-	-	4.0	-	-	0.0	-	-	-
150.0 70.0	-	-	1.9	-	-	0.0	-	-	0.0	-	-	-
150.0 90.0	-	-	-	-	-	11.3	-	-	2.7	-	-	-
153.0 30.0	-	-	0.0	-	-	2.2	-	-	-	-	-	-
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-
157.0 50.0	-	-	0.0	-	-	2.1	-	-	-	-	-	-

*Hygophum atratum*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 90.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	-	0.0	0.0	-	-
103.0 80.0	1.8	-	0.0	0.0	0.0	-	-	-	-	-	-	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	-
120.0 100.0	0.0	2.2	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0 110.0	2.1	-	2.5	0.0	0.0	0.0	-	-	-	-	-	-
123.0 60.0	0.0	1.8	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
127.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	-
127.0 50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.7	-	-	-
127.0 60.0	0.0	0.0	2.6	0.0	0.0	-	0.0	0.0	-	-	-	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.8	-	0.0	-	0.0	0.0	-
130.0 40.0	0.0	1.8	0.0	0.0	0.0	1.8	-	-	0.0	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	0.0	-
130.0 60.0	0.0	0.0	2.0	0.0	3.4	1.8	-	0.0	3.2	0.0	0.0	-
130.0 70.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	2.8	0.0	-	-
130.0 80.0	0.0	1.7	0.0	0.0	1.8	0.0	-	-	-	-	-	-
133.0 40.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 50.0	0.0	0.0	0.0	0.0	0.0	3.8	-	0.0	-	-	-	-
137.0 30.0	-	-	-	-	-	-	-	0.0	2.7	0.0	0.0	-
137.0 40.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	-	-	-	-

TABLE 4. (cont.)

*Hygophum atratum* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 50.0	0.0	0.0	0.0	0.0	0.0	2.6	-	0.0	-	-	-	-
137.0 60.0	0.0	3.5	0.0	0.0	0.0	3.4	-	-	-	-	-	-
140.0 60.0	-	-	0.0	-	-	1.9	-	-	0.0	-	-	-
143.0 50.0	-	-	2.2	-	-	0.0	-	-	-	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	5.2	-	-	-
150.0 25.0	-	-	9.7	-	-	0.0	-	-	0.0	-	-	-
150.0 30.0	-	-	10.1	-	-	3.0	-	-	0.0	-	-	-
150.0 40.0	-	-	0.0	-	-	0.0	-	-	5.5	-	-	-
150.0 60.0	-	-	0.0	-	-	5.4	-	-	0.0	-	-	-
150.0 70.0	-	-	1.9	-	-	3.6	-	-	2.5	-	-	-
150.0 80.0	-	-	0.0	-	-	0.0	-	-	2.9	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	7.4	-	-	-
153.0 20.0	-	-	2.1	-	-	4.4	-	-	0.0	-	-	-
153.0 50.0	-	-	1.8	-	-	0.0	-	-	-	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	1.3	-	-	-
157.0 30.0	-	-	9.3	-	-	0.0	-	-	-	-	-	-

*Hygophum reinhardtii*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 100.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	-	-	-	-
90.0 110.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	-	-	-	-	-
90.0 120.0	0.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	1.8	2.1	0.0	0.0	-	-	-	-	-
97.0 90.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
100.0 90.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0 100.0	5.6	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-
100.0 120.0	1.9	-	-	0.0	0.0	-	-	-	-	-	-	-
110.0 80.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	-	-	-	-	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-
120.0 110.0	0.0	-	0.0	1.6	0.0	0.0	-	-	-	-	-	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	0.0	-
150.0 100.0	-	-	-	-	-	-	-	-	7.6	-	-	-

*Loweina rara*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 80.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-
100.0 80.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-
100.0 90.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0 120.0	1.9	-	-	0.0	0.0	-	-	-	-	-	-	-



TABLE 4. (cont.)

*Loweina rara* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
117.0	50.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0	80.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	110.0	0.0	0.0	1.6	0.0	0.0	-	-	-	-	-	-
123.0	50.0	0.0	0.0	1.9	0.0	-	0.0	0.0	0.0	-	-	-
130.0	35.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	0.0	0.0	-
130.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.9	-
130.0	50.0	0.0	0.0	0.0	0.0	0.7	-	0.0	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0	70.0	0.0	0.0	1.7	0.0	0.0	-	0.0	-	0.0	-	-
133.0	50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
137.0	40.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	-	-	-	-
137.0	50.0	0.0	0.0	3.6	0.0	0.0	-	0.0	-	-	-	-
143.0	35.0	-	1.7	-	-	0.0	-	-	0.0	-	-	-

*Myctophum aurolaternatum*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
150.0	19.0	-	-	-	-	-	-	-	2.6	-	-	-
150.0	30.0	-	2.0	-	-	0.0	-	-	0.0	-	-	-
153.0	16.0	-	-	-	-	-	-	-	5.0	-	-	-
157.0	10.0	-	1.5	-	-	0.0	-	-	2.5	-	-	-
157.0	30.0	-	14.9	-	-	0.0	-	-	-	-	-	-

*Myctophum nitidulum*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	120.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-	-
93.0	80.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	-	-	-	-
97.0	60.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0	80.0	0.0	0.0	1.6	1.6	1.8	0.0	-	-	-	-	-
97.0	90.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0	80.0	0.0	0.0	1.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-
100.0	90.0	0.0	0.0	3.1	1.7	0.0	0.0	-	0.0	0.0	-	-
100.0	100.0	0.0	0.0	0.0	5.4	-	4.5	-	-	-	-	-
100.0	110.0	0.0	-	1.5	0.0	-	-	-	-	-	-	-
103.0	80.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-
110.0	90.0	0.0	0.0	0.0	1.4	0.0	0.0	-	-	-	-	-
110.0	110.0	0.0	0.0	0.0	0.0	1.7	-	-	-	-	-	-
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	5.2	0.0	-
120.0	80.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	-
123.0	50.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-

TABLE 4. (cont.)

*Myctophum nitidulum* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
123.0 60.0	0.0	0.0	0.0	0.0	0.0	-	1.6	0.0	-	-	-	-
130.0 60.0	0.0	0.0	0.0	2.5	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0 70.0	0.0	1.7	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-
133.0 40.0	1.6	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-

*Protomyctophum crockeri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 40.0	-	-	-	-	-	-	-	2.7	-	-	-	-
40.0 45.0	-	-	-	-	-	-	1.6	-	-	-	-	-
40.0 50.0	-	-	-	-	-	-	0.0	2.3	-	-	-	-
40.0 60.0	-	-	-	-	-	-	0.0	10.0	-	-	-	-
40.0 100.0	-	-	-	-	-	-	3.2	-	-	-	-	-
43.0 50.0	-	-	-	-	-	-	-	4.5	-	-	-	-
47.0 50.0	-	-	-	-	-	-	-	2.4	-	-	-	-
50.0 80.0	-	-	-	-	-	-	8.9	0.0	-	-	-	-
50.0 100.0	-	-	-	-	-	-	7.9	-	-	-	-	-
50.0 110.0	-	-	-	-	-	-	2.9	-	-	-	-	-
60.0 60.0	0.0	-	-	0.0	0.0	0.0	3.2	0.0	0.0	2.5	5.0	-
60.0 70.0	-	-	-	0.0	5.6	0.0	3.3	3.8	0.0	4.4	0.0	-
60.0 80.0	-	-	-	0.0	1.8	8.7	3.5	0.0	0.0	0.0	2.9	-
60.0 90.0	-	-	-	0.0	3.6	0.0	1.7	0.0	0.0	-	0.0	-
60.0 100.0	-	-	-	0.0	0.0	0.0	3.2	-	-	-	6.5	-
60.0 130.0	-	-	-	-	-	2.0	-	-	-	-	-	-
61.0 55.0	11.2	-	-	0.0	1.7	3.2	3.3	-	-	-	-	-
63.0 57.0	15.3	-	-	0.0	3.2	6.5	0.0	-	-	-	-	-
63.0 67.0	8.5	-	-	0.0	-	0.0	0.0	-	-	-	-	-
67.0 55.0	0.0	-	-	0.0	3.1	0.0	0.0	0.0	-	-	4.8	-
67.0 65.0	0.0	-	-	0.0	0.0	0.0	1.8	0.0	-	-	1.4	-
70.0 51.0	-	-	-	-	-	-	-	0.0	-	-	1.6	-
70.0 55.0	0.0	-	-	0.0	0.0	15.2	0.0	-	-	-	-	-
70.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	2.4	2.6	-
70.0 70.0	0.0	-	-	0.0	7.1	0.0	0.0	0.0	-	5.6	0.0	-
70.0 80.0	2.3	-	-	0.0	0.0	0.0	0.0	1.3	-	0.0	5.0	-
70.0 90.0	3.7	-	-	0.0	0.0	7.2	0.0	0.0	-	2.5	-	-
70.0 100.0	-	-	-	0.0	0.0	0.0	1.7	-	-	-	-	-
70.0 110.0	-	-	-	1.8	0.0	1.8	0.0	-	-	-	-	-
73.0 51.0	0.0	-	-	7.2	0.0	2.7	0.0	-	-	-	-	-
73.0 61.0	0.0	-	-	0.0	0.0	1.8	0.0	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	7.2	0.0	0.0	-	0.0	0.0	0.0
77.0 65.0	0.0	-	-	0.0	7.2	0.0	2.3	0.0	-	0.0	0.0	0.0
80.0 55.0	0.0	0.0	0.0	10.8	0.0	0.0	5.7	-	0.0	-	-	2.5
80.0 60.0	6.5	0.0	9.1	5.1	-	3.0	-	0.0	1.1	-	0.0	-
80.0 70.0	0.0	6.2	4.1	1.7	-	3.3	0.0	2.9	1.0	-	0.0	2.6
80.0 80.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	2.8	-	-	-

TABLE 4. (cont.)

*Protomycetophum crockeri* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	90.0	0.0	0.0	0.0	-	0.0	0.0	-	4.3	-	0.0	-
80.0	100.0	7.3	0.0	3.3	-	0.0	1.7	-	0.0	-	13.4	-
80.0	110.0	0.0	0.0	0.0	-	11.3	0.0	-	-	-	-	-
80.0	130.0	0.0	3.3	1.8	-	-	-	-	-	-	-	-
83.0	55.0	3.6	-	0.0	1.4	-	-	-	1.0	-	-	-
83.0	60.0	0.0	-	0.0	0.0	-	-	-	0.0	-	-	-
83.0	70.0	-	-	1.7	4.2	-	-	-	-	-	-	-
83.0	80.0	2.9	-	3.8	-	0.0	-	-	-	-	-	-
85.0	50.0	-	0.0	-	-	-	-	0.0	1.0	-	2.5	3.1
85.0	60.0	-	-	-	-	-	-	0.0	2.0	-	3.2	-
85.0	70.0	-	0.0	-	-	-	-	5.4	-	-	-	-
85.0	80.0	-	10.0	-	-	-	-	4.6	-	-	-	-
87.0	35.0	0.0	-	0.0	0.9	-	-	0.0	-	-	-	-
87.0	40.0	0.0	-	0.0	0.0	1.9	-	-	-	-	-	-
87.0	60.0	4.2	-	1.9	0.0	2.2	-	-	-	-	-	-
87.0	70.0	0.0	-	1.8	0.0	10.5	-	-	-	-	-	-
87.0	80.0	1.3	-	0.0	0.0	2.5	-	-	-	-	-	-
87.0	90.0	0.0	-	0.0	1.9	7.6	-	-	-	-	-	-
90.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	37.0	2.0	3.2	0.0	0.0	0.0	3.3	1.8	0.0	0.0	0.0	0.0
90.0	45.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	2.4	0.0	0.0
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
90.0	60.0	3.7	0.0	1.4	0.0	3.2	0.0	0.0	10.9	5.9	0.0	7.8
90.0	70.0	0.0	12.1	2.7	0.0	1.7	0.0	0.0	0.0	-	3.1	-
90.0	80.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	-	-	-	-
90.0	90.0	0.0	4.1	0.0	0.0	2.0	0.0	0.0	-	-	-	-
90.0	100.0	1.9	3.7	0.0	0.0	3.5	0.0	8.3	-	-	-	-
90.0	110.0	0.0	3.3	1.5	0.0	0.0	0.0	-	-	-	-	-
90.0	120.0	5.9	0.0	3.2	3.5	-	-	-	-	-	-	-
93.0	30.0	0.0	0.0	0.0	0.0	-	-	-	2.3	1.3	-	0.0
93.0	40.0	0.0	0.0	1.4	0.0	0.0	1.8	2.5	0.0	0.0	-	4.9
93.0	50.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	4.6	-	2.6
93.0	60.0	2.1	1.8	0.0	1.7	0.0	2.1	7.8	-	-	-	-
93.0	70.0	1.6	0.0	7.2	0.0	0.0	-	0.0	-	-	-	-
93.0	80.0	3.9	0.0	1.6	5.2	4.0	2.2	0.0	-	-	-	-
93.0	90.0	1.9	0.0	1.8	12.6	14.0	0.0	-	-	-	-	-
93.0	32.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	2.7	0.0	-	-
97.0	40.0	0.0	0.0	1.9	0.0	0.0	11.5	0.0	0.0	7.0	-	0.0
97.0	50.0	0.0	1.6	0.0	0.0	0.0	0.0	2.5	5.5	1.3	-	0.0
97.0	60.0	1.9	1.7	0.0	3.8	0.0	0.0	0.0	-	-	-	-
97.0	70.0	0.0	0.0	1.7	0.0	1.9	4.0	2.6	-	-	-	-
97.0	80.0	0.0	0.0	11.2	0.0	1.8	25.2	0.0	-	-	-	-
97.0	90.0	1.9	1.8	0.0	7.2	1.6	0.0	-	-	-	-	0.0
100.0	30.0	1.6	0.0	3.5	7.2	0.0	-	0.0	0.0	0.0	-	0.0
100.0	40.0	0.0	0.0	3.7	7.2	5.7	0.0	0.0	0.0	1.3	-	-
100.0	50.0	0.0	0.0	0.0	2.1	0.0	0.0	2.0	0.0	2.5	4.9	0.0

TABLE 4. (cont.)

*Protomyctophum crockeri* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	60.0	1.9	0.0	1.6	0.0	0.0	2.7	8.2	0.0	0.0	2.7	2.8
100.0	70.0	0.0	0.0	4.6	11.2	1.8	0.0	3.7	2.6	0.0	-	2.6
100.0	80.0	0.0	0.0	1.5	0.0	9.2	0.0	-	0.0	0.0	0.0	-
100.0	90.0	0.0	0.0	4.6	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0	100.0	0.0	0.0	0.0	3.6	-	2.3	-	-	-	-	-
100.0	110.0	1.9	-	0.0	1.9	-	-	-	-	-	-	-
100.0	120.0	1.9	-	0.0	2.0	-	-	-	-	-	-	-
103.0	35.0	-	0.0	2.1	0.0	9.7	-	-	0.0	1.1	0.0	-
103.0	40.0	0.0	8.4	0.0	0.0	2.3	-	-	0.0	0.0	2.6	-
103.0	50.0	0.0	2.8	1.9	0.0	0.0	-	-	-	-	-	-
103.0	60.0	3.6	13.4	0.0	2.1	5.2	-	-	-	-	-	-
103.0	70.0	0.0	0.0	0.0	4.0	5.5	-	-	-	-	-	-
103.0	80.0	0.0	8.6	0.0	0.0	-	-	-	-	-	-	-
105.0	40.0	-	-	-	-	-	-	0.0	-	-	-	-
105.0	60.0	-	-	-	-	-	-	4.7	0.0	-	-	-
107.0	35.0	-	0.0	4.8	0.0	3.6	-	-	0.0	0.0	0.0	-
107.0	40.0	1.9	0.0	5.4	1.7	1.9	-	-	0.0	6.4	5.3	-
107.0	50.0	4.0	2.9	0.0	0.0	1.6	-	-	-	-	-	-
107.0	60.0	1.7	0.0	0.0	1.8	1.8	-	-	-	-	-	-
107.0	70.0	1.7	10.3	2.0	1.7	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	3.3	0.0	0.0	-	-	-	-	-	-
110.0	35.0	-	-	-	-	-	-	-	1.7	0.0	0.0	0.0
110.0	35.0	0.0	0.0	0.0	0.0	1.8	-	5.5	0.0	0.0	0.0	0.0
110.0	40.0	1.7	0.0	1.8	0.0	0.0	-	13.2	0.0	2.1	0.0	0.0
110.0	50.0	0.0	2.4	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	2.8
110.0	60.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	-
110.0	70.0	0.0	0.0	2.1	0.0	2.2	3.7	-	-	-	-	-
110.0	80.0	4.1	0.0	3.9	2.0	0.0	0.0	-	-	-	-	-
110.0	90.0	2.4	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
110.0	100.0	1.8	0.0	0.0	0.0	0.0	-	-	-	-	-	-
110.0	110.0	1.5	-	0.0	0.0	5.1	-	-	-	-	-	-
113.0	35.0	1.5	1.5	0.0	0.0	0.0	-	-	-	-	-	-
113.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	50.0	3.0	5.6	1.9	10.3	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	4.2	0.0	0.0	-	-	-	-	-	-
113.0	70.0	1.6	0.0	2.4	0.0	0.0	-	-	-	-	-	-
117.0	35.0	3.5	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	40.0	1.1	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	50.0	0.0	0.0	0.0	3.9	0.0	-	-	-	-	-	-
117.0	60.0	1.2	0.0	0.0	0.0	4.7	-	-	-	-	-	-
117.0	70.0	1.6	0.0	0.0	1.5	0.0	0.0	0.0	-	-	-	-
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
120.0	50.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.4	0.0
120.0	60.0	0.0	0.0	4.1	1.8	0.0	0.0	2.8	5.5	10.5	0.0	-
120.0	70.0	6.7	4.1	1.7	0.0	0.0	0.0	0.0	-	-	0.0	-



TABLE 4. (cont.)

*Protomyctophum crockeri* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 80.0	4.0	0.0	2.7	0.0	2.1	2.2	0.0	2.5	6.4	0.0	0.0	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-
120.0 110.0	2.1	-	2.5	0.0	0.0	3.5	-	-	-	-	0.0	-
123.0 40.0	0.0	5.6	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
123.0 50.0	11.8	5.3	2.7	5.8	3.9	-	5.5	0.0	0.0	-	-	-
123.0 60.0	0.0	1.8	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
127.0 40.0	1.7	3.3	0.0	2.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-
127.0 50.0	0.0	5.4	0.0	0.0	0.0	-	0.0	0.0	2.7	-	-	-
127.0 60.0	26.2	1.7	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	1.5	-	0.0	-	0.0	0.0	-
130.0 40.0	1.9	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.9	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.5	0.0	0.0	0.0	-
130.0 80.0	0.0	0.0	0.0	0.0	0.0	5.7	-	-	0.0	-	-	-
130.0 90.0	-	-	-	-	-	17.8	-	-	-	-	-	-
133.0 30.0	1.8	0.0	0.0	0.0	0.9	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	1.6	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 50.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	-	-	-	-
133.0 60.0	3.1	4.8	0.0	0.0	0.0	0.0	-	-	-	-	-	-

*Symbolophorus californiensis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 100.0	-	-	-	0.0	0.0	3.5	1.6	-	-	-	0.0	-
70.0 110.0	-	-	-	0.0	0.0	1.8	0.0	-	-	-	-	-
70.0 120.0	-	-	-	-	-	26.2	6.4	-	-	-	-	-
70.0 130.0	-	-	-	-	-	5.2	-	-	-	-	-	-
77.0 65.0	0.0	-	-	0.0	0.0	0.0	2.3	0.0	-	0.0	0.0	0.0
80.0 55.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	-	0.0	-	0.0	-
80.0 90.0	0.0	0.0	0.0	0.0	-	0.0	1.7	-	0.0	-	0.0	-
80.0 100.0	-	0.0	0.0	0.0	-	0.0	5.1	-	9.1	-	3.3	-
80.0 110.0	-	0.0	1.8	0.0	-	3.2	3.5	-	-	-	-	-
80.0 130.0	-	0.0	0.0	1.8	-	-	-	-	-	-	-	-
83.0 80.0	0.0	-	-	3.8	-	0.0	-	-	-	-	-	-
83.0 90.0	0.0	-	5.0	0.0	-	4.0	-	-	-	-	-	-
85.0 80.0	-	-	2.4	-	-	-	-	2.3	-	-	-	-
85.0 90.0	-	-	-	-	-	-	-	-	-	-	-	-
87.0 80.0	0.0	-	-	0.0	3.9	25.3	-	-	-	-	-	-
87.0 90.0	0.0	-	-	0.0	1.9	0.0	-	-	-	-	-	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	12.1	0.0	0.0	1.7
90.0 60.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
90.0 70.0	0.0	0.0	0.0	2.7	1.8	1.7	0.0	0.0	0.0	-	0.0	-
90.0 80.0	3.6	0.0	0.0	2.3	4.2	1.8	4.0	2.9	-	-	-	-
90.0 90.0	0.0	1.9	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 100.0	0.0	0.0	11.0	4.1	4.4	0.0	0.0	0.0	-	-	-	-

TABLE 4. (cont.)

*Symbolophorus californiensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 110.0	0.0	0.0	1.6	6.0	2.0	0.0	5.3	-	-	-	-	-
90.0 120.0	2.0	0.0	1.9	22.4	14.0	-	-	-	-	-	-	-
93.0 30.0	0.0	0.0	0.0	0.0	0.0	-	3.6	0.0	0.0	0.0	-	0.0
93.0 40.0	0.0	0.0	0.0	2.8	0.0	3.7	0.0	5.0	0.0	0.0	-	0.0
93.0 50.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	-	5.3
93.0 60.0	0.0	1.8	0.0	7.1	1.7	0.0	-	10.4	-	-	-	-
93.0 70.0	0.0	0.0	0.0	3.6	4.0	1.0	-	5.5	-	-	-	-
93.0 80.0	13.8	3.8	4.7	0.0	45.2	8.0	10.9	2.4	-	-	-	-
93.0 90.0	3.8	4.0	0.0	16.3	75.6	2.0	0.0	-	0.0	-	-	-
97.0 32.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
97.0 40.0	0.0	1.6	1.8	0.0	0.0	0.0	1.9	0.0	4.3	4.7	-	0.0
97.0 50.0	0.0	0.0	0.0	1.6	2.2	0.0	1.8	0.0	0.0	0.0	-	0.0
97.0 60.0	0.0	0.0	6.6	1.8	9.5	0.0	1.6	5.3	0.0	-	-	-
97.0 70.0	0.0	0.0	8.0	8.5	5.6	1.9	0.0	0.0	-	-	-	-
97.0 80.0	0.0	3.2	9.8	48.0	8.3	12.7	0.0	8.6	-	-	-	-
97.0 90.0	0.0	0.0	1.6	8.8	36.0	3.2	0.0	-	-	-	-	-
100.0 40.0	0.0	0.0	0.0	10.4	1.8	0.0	0.0	0.0	0.0	0.0	-	-
100.0 50.0	0.0	0.0	1.6	0.0	0.0	3.7	0.0	2.0	0.0	0.0	0.0	0.0
100.0 60.0	1.9	7.7	4.9	9.6	0.0	5.0	0.0	0.0	5.2	6.6	0.0	2.8
100.0 70.0	0.0	0.0	0.0	4.6	5.6	18.0	0.0	0.0	5.2	0.0	-	0.0
100.0 80.0	1.9	3.7	1.7	1.5	1.6	5.5	0.0	-	0.0	0.0	0.0	-
100.0 90.0	27.3	8.0	4.7	20.0	1.7	0.0	0.0	-	0.0	0.0	-	-
100.0 100.0	1.9	-	0.0	1.6	5.4	-	0.0	-	-	-	-	-
100.0 110.0	0.0	-	-	0.0	7.8	-	-	-	-	-	-	-
100.0 120.0	0.0	-	-	1.5	2.0	-	-	-	-	-	-	-
103.0 35.0	-	-	0.0	6.2	4.1	1.6	-	-	2.4	0.0	0.0	-
103.0 50.0	0.0	-	0.0	0.0	7.8	0.0	-	-	-	-	-	-
103.0 60.0	3.4	-	0.0	0.0	10.5	0.0	-	-	-	-	-	-
103.0 70.0	3.5	-	0.0	0.0	2.0	7.4	-	-	-	-	-	-
103.0 80.0	-	-	17.1	0.0	5.8	-	-	-	-	-	-	-
105.0 40.0	-	1.8	-	-	-	-	-	0.0	-	-	-	-
105.0 50.0	-	0.0	-	-	-	-	-	2.9	-	-	-	-
105.0 80.0	-	3.4	-	-	-	-	-	-	-	-	-	-
105.0 90.0	-	3.5	-	-	-	-	-	-	-	-	-	-
107.0 35.0	-	-	-	-	-	-	-	-	-	-	-	-
107.0 40.0	0.0	-	0.0	0.0	0.0	0.0	-	-	2.7	0.0	0.0	-
107.0 50.0	0.0	-	0.0	5.4	3.3	0.0	-	-	0.0	0.0	0.0	-
107.0 60.0	1.7	-	0.0	2.1	0.0	3.3	-	-	-	-	-	-
107.0 70.0	3.5	-	0.0	0.0	3.6	0.0	-	-	-	-	-	-
107.0 80.0	0.0	-	0.0	11.5	6.8	0.0	-	-	-	-	-	-
110.0 40.0	0.0	0.0	0.0	0.0	2.6	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 50.0	3.3	1.7	0.0	1.7	0.0	2.9	-	0.0	2.5	0.0	0.0	0.0
110.0 60.0	0.0	1.7	0.0	1.8	2.0	0.0	-	0.0	0.0	2.8	0.0	0.0
110.0 70.0	0.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
110.0 80.0	0.0	0.0	2.5	7.8	2.0	0.0	0.0	-	-	-	-	-
110.0 90.0	0.0	0.0	0.0	5.4	11.2	0.0	0.0	-	-	-	-	-

TABLE 4. (cont.)

*Symbolophorus californiensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	110.0	1.5	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0	40.0	0.0	-	1.9	0.0	1.9	-	-	-	-	-	-
113.0	50.0	0.0	1.9	0.0	3.4	0.0	-	-	-	-	-	-
117.0	35.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
117.0	40.0	0.0	0.0	0.0	0.0	1.7	-	-	-	-	-	-
117.0	50.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-	-	-
117.0	60.0	0.0	0.0	2.2	0.0	0.0	-	-	-	-	-	-
120.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	0.0
120.0	70.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	100.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
123.0	60.0	0.0	0.0	0.0	1.0	-	0.0	0.0	-	-	-	-
127.0	50.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
133.0	40.0	1.6	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-

*Tarletonbeania crenularis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	38.0	-	-	-	-	-	-	1.5	-	-	-	-
40.0	45.0	-	-	-	-	-	4.9	-	-	-	-	-
40.0	50.0	-	-	-	-	-	1.9	11.6	-	-	-	-
40.0	60.0	-	-	-	-	-	27.6	5.0	-	-	-	-
40.0	70.0	-	-	-	-	-	-	23.6	-	-	-	-
40.0	80.0	-	-	-	-	-	1.6	10.7	-	-	-	-
40.0	90.0	-	-	-	-	-	1.6	-	-	-	-	-
40.0	110.0	-	-	-	-	-	7.0	-	-	-	-	-
43.0	50.0	-	-	-	-	-	-	9.1	-	-	-	-
43.0	60.0	-	-	-	-	-	26.9	12.2	-	-	-	-
47.0	50.0	-	-	-	-	-	-	4.8	-	-	-	-
47.0	55.0	-	-	-	-	-	6.3	-	-	-	-	-
47.0	60.0	-	-	-	-	-	2.8	9.8	-	-	-	-
50.0	47.0	-	-	-	-	-	-	1.4	-	-	-	-
50.0	55.0	-	-	-	-	-	2.9	-	-	-	-	-
50.0	60.0	-	-	-	-	-	12.9	5.1	-	-	-	-
50.0	70.0	-	-	-	-	-	16.3	22.3	-	-	-	-
50.0	80.0	-	-	-	-	-	8.9	4.0	-	-	-	-
50.0	90.0	-	-	-	-	-	43.2	-	-	-	-	-
50.0	100.0	-	-	-	-	-	17.4	-	-	-	-	-
50.0	110.0	-	-	-	-	-	1.5	-	-	-	-	-
53.0	54.0	-	-	-	-	-	37.6	-	-	-	-	-
53.0	64.0	-	-	-	-	-	2.8	-	-	-	-	-
53.0	65.0	-	-	-	-	-	-	4.3	-	-	-	-
57.0	54.0	-	-	-	-	-	5.0	-	-	-	-	-
57.0	55.0	-	-	-	-	-	-	4.4	-	-	-	-

TABLE 4. (cont.)

*Tarletonbeania crenularis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
57.0	64.0	-	-	-	-	-	15.9	-	-	-	-	-
57.0	65.0	-	-	-	-	-	-	5.2	-	-	-	-
60.0	55.0	-	-	-	-	-	-	4.4	-	-	-	-
60.0	60.0	-	-	-	-	9.4	6.4	0.0	3.3	5.0	0.0	-
60.0	70.0	-	-	-	0.0	5.1	9.9	7.6	7.8	0.0	2.5	-
60.0	80.0	-	-	-	0.0	17.4	17.5	5.3	0.0	11.0	0.0	-
60.0	90.0	-	-	-	10.9	1.8	3.5	11.9	6.4	-	9.7	-
60.0	100.0	-	-	-	0.0	6.9	6.3	-	-	-	0.0	-
60.0	110.0	-	-	-	7.4	3.5	4.6	-	-	-	-	-
60.0	120.0	-	-	-	-	7.1	1.5	-	-	-	-	-
61.0	55.0	-	-	-	0.0	0.0	14.8	-	-	-	-	-
63.0	57.0	-	-	-	0.0	32.4	12.5	-	-	-	-	-
63.0	65.0	-	-	-	-	-	-	5.5	-	-	-	-
63.0	67.0	-	-	-	-	10.2	7.5	-	-	-	-	-
67.0	50.0	-	-	-	-	-	-	19.8	-	-	3.5	-
67.0	55.0	-	-	-	0.0	0.0	1.8	2.3	-	-	11.9	-
67.0	65.0	-	-	-	0.0	25.9	9.2	2.7	-	-	1.4	-
70.0	51.0	-	-	-	-	-	-	0.0	-	-	1.4	-
70.0	55.0	-	-	-	3.3	15.2	6.4	-	-	-	-	-
70.0	60.0	-	-	-	23.7	50.9	6.6	3.8	-	2.4	7.9	-
70.0	70.0	-	-	-	14.2	32.5	11.8	0.0	-	2.8	20.7	-
70.0	80.0	-	-	-	9.6	138.3	3.5	2.3	-	0.0	1.7	-
70.0	90.0	-	-	-	1.8	50.7	36.2	0.0	-	0.0	-	-
70.0	100.0	-	-	-	21.8	27.0	21.8	-	-	-	-	-
70.0	110.0	-	-	-	0.0	0.0	1.6	-	-	-	-	-
73.0	51.0	-	-	-	2.0	0.0	0.0	-	-	0.0	0.0	-
73.0	60.0	-	-	-	-	-	-	1.4	-	-	-	-
73.0	61.0	-	-	-	14.1	23.3	21.0	-	-	0.0	-	-
77.0	55.0	-	-	-	15.6	64.8	5.7	1.2	-	0.0	18.4	-
77.0	65.0	-	-	-	10.9	68.0	6.8	2.8	-	0.0	12.1	-
80.0	51.0	-	-	-	-	-	0.0	-	0.0	-	2.9	-
80.0	55.0	-	2.2	18.0	28.5	0.0	2.9	-	1.3	-	0.0	-
80.0	60.0	0.0	0.0	6.8	-	3.0	-	-	0.0	-	0.0	-
80.0	70.0	1.5	14.3	11.8	-	16.5	9.6	3.0	1.0	-	7.0	-
80.0	80.0	12.3	0.0	0.0	-	32.6	0.0	0.0	0.0	-	0.0	-
80.0	90.0	9.0	11.9	2.0	-	0.0	8.3	0.0	0.0	-	0.0	-
80.0	100.0	95.2	1.4	3.3	-	1.6	1.7	-	0.0	-	0.0	-
80.0	110.0	7.6	9.2	11.3	-	0.0	0.0	-	-	-	-	-
80.0	130.0	0.0	3.3	1.8	-	-	-	-	-	-	-	-
83.0	55.0	0.0	-	18.8	15.7	-	-	-	1.0	-	-	-
83.0	60.0	3.3	-	29.6	0.0	-	-	-	0.0	-	-	-
83.0	70.0	-	-	8.6	29.2	-	-	-	-	-	-	-
83.0	80.0	-	-	5.7	-	7.6	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	-	0.0	-	0.0	-
85.0	40.0	-	0.0	-	-	-	3.2	2.6	0.0	-	0.0	-
85.0	50.0	-	8.3	-	-	-	-	0.0	1.0	-	0.0	-



TABLE 4. (cont.)

*Tarletonbeania crenularis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
85.0	60.0	-	-	-	-	-	-	2.5	0.0	-	0.0	-
85.0	70.0	-	4.0	-	-	-	-	0.0	-	-	-	-
85.0	90.0	-	4.8	-	-	-	-	-	-	-	-	-
87.0	35.0	10.6	-	0.0	3.5	-	-	0.0	-	-	-	-
87.0	40.0	23.3	-	6.3	7.9	-	-	-	-	-	-	-
87.0	50.0	-	-	2.7	0.0	0.0	-	-	-	-	-	-
87.0	60.0	-	-	15.2	0.0	3.7	-	-	-	-	-	-
87.0	70.0	-	-	5.3	1.7	0.0	-	-	-	-	-	-
87.0	80.0	-	-	7.1	0.0	0.0	-	-	-	-	-	-
87.0	90.0	-	-	15.8	3.8	2.5	-	-	-	-	-	-
90.0	30.0	1.8	3.3	0.0	0.0	1.9	1.8	0.0	0.0	0.0	0.0	0.0
90.0	37.0	3.7	3.2	2.4	0.0	7.0	14.8	0.0	0.0	0.0	0.0	0.0
90.0	45.0	10.4	0.0	15.0	9.9	10.0	-	0.0	0.0	0.0	0.0	3.2
90.0	53.0	1.7	0.0	4.9	2.0	0.0	10.3	2.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	1.6	0.0	9.8	25.4	1.8	5.8	0.0	0.0	0.0	0.0
90.0	70.0	3.4	6.0	1.4	0.0	0.0	0.0	0.0	0.0	-	-	-
90.0	80.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	-	-	-	-
90.0	110.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	-	-	-	-
93.0	30.0	5.4	0.0	1.5	0.9	-	1.8	2.5	0.0	0.0	-	9.8
93.0	40.0	5.3	0.0	7.0	0.0	29.9	12.1	0.0	0.0	0.0	-	0.0
93.0	50.0	0.0	0.0	3.7	0.0	10.1	0.0	0.0	0.0	0.0	-	0.0
93.0	60.0	1.8	0.0	0.0	0.0	4.5	-	0.0	-	-	-	-
93.0	70.0	0.0	0.0	0.0	4.0	1.0	-	0.0	-	-	-	-
93.0	80.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-
97.0	32.0	0.0	0.0	0.0	2.0	8.9	3.5	0.0	0.0	0.0	-	0.0
97.0	40.0	1.6	0.0	5.7	6.0	7.2	0.0	0.0	0.0	-	-	-
97.0	60.0	0.0	0.0	0.0	0.0	7.0	1.6	0.0	-	-	-	-
97.0	70.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
100.0	30.0	4.0	0.0	1.7	8.7	4.2	0.0	1.8	0.0	0.0	-	0.0
100.0	40.0	0.0	0.0	10.4	7.2	0.0	-	0.0	0.0	0.0	-	0.0
100.0	50.0	0.0	0.0	3.7	4.2	0.0	1.8	0.0	0.0	0.0	0.0	0.0
100.0	60.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	2.6	0.0	0.0	0.0
100.0	70.0	0.0	0.0	0.0	0.0	1.8	0.0	1.8	0.0	0.0	0.0	0.0
103.0	35.0	-	0.0	0.0	2.0	3.2	-	-	0.0	0.0	0.0	-
103.0	40.0	-	2.8	1.7	3.8	7.0	-	-	0.0	0.0	0.0	-
103.0	60.0	-	0.0	0.0	6.3	0.0	-	-	-	-	-	-
107.0	50.0	-	0.0	0.0	5.4	0.0	-	-	0.0	0.0	0.0	0.0
110.0	35.0	0.0	0.0	0.0	2.6	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	50.0	0.0	0.0	0.0	0.0	1.5	-	0.0	0.0	0.0	0.0	0.0
113.0	35.0	0.0	5.5	2.4	0.0	0.0	-	0.0	0.0	-	-	-
113.0	60.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-	-
117.0	40.0	0.0	0.0	0.0	3.4	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Synodus spp.*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	33.0	-	-	-	-	-	-	-	0.0	0.0	8.5	0.0
115.0	27.0	-	-	-	-	-	-	0.0	0.0	0.0	25.3	111.9
115.0	30.0	-	-	-	-	-	-	1.9	0.0	1.4	0.0	157.7
115.0	35.0	-	-	-	-	-	-	0.0	0.0	31.5	0.0	11.8
115.0	40.0	-	-	-	-	-	-	0.0	0.0	0.0	0.0	7.7
120.0	25.0	-	-	-	-	-	-	0.0	0.0	0.0	3.1	0.0
120.0	30.0	-	-	-	-	-	-	76.8	-	55.1	3.4	19.8
120.0	35.0	3.7	0.0	0.0	0.0	0.0	0.0	250.3	-	14.7	0.0	13.8
123.0	37.0	-	-	-	-	-	-	0.0	1.2	-	8.9	0.0
123.0	40.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	48.1	1.3
127.0	34.0	-	-	-	-	-	-	0.0	0.0	4.3	26.6	-
130.0	30.0	-	-	-	-	-	-	0.0	0.0	12.1	10.8	-
130.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	10.1	13.0	-
133.0	25.0	-	-	-	-	-	-	0.0	8.9	0.0	1.6	-
133.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	5.1	0.0	16.6	-
137.0	23.0	-	-	-	-	-	-	3.3	0.0	2.4	4.1	-
140.0	30.0	-	-	-	-	-	-	-	3.8	-	-	-
143.0	30.0	-	0.0	-	-	0.0	-	-	24.2	-	-	-
147.0	25.0	-	0.0	-	-	0.0	-	-	3.0	-	-	-
153.0	16.0	-	-	-	-	-	-	-	5.0	-	-	-

*Bregmaceros spp.*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
153.0	16.0	-	-	-	-	-	-	-	2.5	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	1.3	-	-	-

*Merluccius productus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0	80.0	-	-	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0	90.0	-	-	14.5	3.6	0.0	0.0	0.0	0.0	-	0.0	-
60.0	100.0	-	-	20.8	0.0	0.0	0.0	-	-	-	0.0	-
60.0	110.0	-	-	5.6	0.0	0.0	0.0	-	-	-	-	-
61.0	55.0	-	-	2.9	0.0	0.0	0.0	-	-	-	-	-
63.0	67.0	-	-	7.4	-	0.0	0.0	-	-	-	-	-
67.0	65.0	-	-	136.8	0.0	0.0	0.0	0.0	-	-	0.0	-
70.0	55.0	-	-	14.0	0.0	0.0	0.0	0.0	-	-	-	-
70.0	60.0	-	-	4.5	6.8	0.0	0.0	0.0	-	0.0	0.0	-
70.0	70.0	-	-	10.9	0.0	4.1	0.0	0.0	-	0.0	0.0	-
70.0	80.0	44.1	-	31.2	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0	90.0	0.0	-	105.6	0.0	0.0	0.0	0.0	-	0.0	-	-
70.0	100.0	-	-	91.0	0.0	0.0	0.0	-	-	-	-	-

TABLE 4. (cont.)

*Merluccius productus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	51.0	0.0	-	4.7	0.0	0.0	0.0	-	-	-	-	-
73.0	61.0	0.0	-	64.4	1.8	0.0	0.0	-	-	-	-	-
77.0	55.0	0.0	-	200.9	0.0	3.6	3.8	0.0	0.0	0.0	0.0	0.0
77.0	65.0	0.0	-	34.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.0	55.0	0.0	294.3	104.4	14.2	3.3	0.0	-	0.0	-	2.8	-
80.0	60.0	0.0	1144.6	65.9	-	0.0	-	0.0	0.0	-	0.0	0.0
80.0	70.0	0.0	1240.3	37.2	-	0.0	0.0	0.0	0.0	-	0.0	0.0
80.0	80.0	0.0	434.7	211.6	-	0.0	0.0	0.0	0.0	-	0.0	0.0
80.0	90.0	0.0	342.8	7.8	-	0.0	0.0	-	0.0	-	0.0	-
80.0	100.0	0.0	535.5	127.1	-	0.0	0.0	-	0.0	-	0.0	-
80.0	110.0	0.0	119.0	47.3	-	0.0	0.0	-	-	-	-	-
80.0	120.0	0.0	715.5	144.3	-	0.0	0.0	-	-	-	-	-
80.0	130.0	0.0	2.0	1288.7	-	-	-	-	-	-	-	4.5
83.0	43.0	-	123.9	-	-	-	-	-	-	-	0.0	-
83.0	55.0	0.0	-	273.2	0.0	-	-	-	0.0	-	-	-
83.0	60.0	0.0	-	313.8	0.0	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	263.3	6.3	-	-	-	-	-	-	-
83.0	80.0	0.0	-	209.0	-	0.0	-	-	-	-	-	-
83.0	90.0	0.0	-	368.9	-	0.0	-	-	0.0	-	0.0	21.8
85.0	38.0	-	-	-	-	-	0.0	0.0	0.0	-	0.0	3.1
85.0	40.0	-	0.0	-	-	-	0.0	0.0	0.0	-	0.0	0.0
85.0	50.0	-	1.7	-	-	-	-	0.0	-	-	-	-
85.0	70.0	-	20.1	-	-	-	-	0.0	-	-	-	-
85.0	80.0	-	20.1	-	-	-	-	-	-	-	-	-
85.0	90.0	-	126.1	-	-	-	-	-	-	-	-	-
87.0	40.0	0.0	-	16.9	0.0	-	-	-	-	-	-	-
87.0	50.0	-	-	0.0	6.8	0.0	-	-	-	-	-	-
87.0	60.0	-	-	577.6	0.0	0.0	-	-	-	-	-	-
87.0	70.0	-	-	174.2	8.6	0.0	-	-	-	-	-	-
87.0	80.0	-	-	247.4	15.4	0.0	-	-	-	-	-	-
87.0	90.0	-	-	221.8	53.2	0.0	-	-	-	-	-	-
90.0	30.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	37.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	45.0	0.0	0.0	30.0	5.9	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	396.1	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	8.0	90.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	70.0	0.0	36.2	160.3	1.8	0.0	0.0	0.0	0.0	3.9	0.0	-
90.0	80.0	0.0	32.8	139.2	0.0	0.0	0.0	0.0	0.0	-	-	-
90.0	90.0	0.0	196.6	205.9	0.0	0.0	0.0	0.0	0.0	-	-	-
90.0	100.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
93.0	30.0	0.0	11.2	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.0	40.0	0.0	221.4	239.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.0	50.0	0.0	24.9	34.8	4.5	3.4	0.0	0.0	0.0	0.0	0.0	0.0
93.0	60.0	0.0	25.6	293.8	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
93.0	70.0	0.0	4.0	351.0	9.9	3.0	-	0.0	-	-	-	-
93.0	80.0	0.0	191.1	169.1	0.0	2.0	0.0	0.0	-	-	-	-

TABLE 4. (cont.)

*Merluccius productus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0	90.0	0.0	13.4	10.9	0.0	0.0	0.0	-	-	-	-	-
97.0	30.0	-	-	36.9	-	-	0.0	0.0	0.0	1.5	-	0.0
97.0	32.0	1.8	5.4	20.8	0.0	1.5	0.0	0.0	0.0	0.0	-	-
97.0	40.0	1.8	1891.8	234.9	0.0	2.9	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	88.6	33.6	6.7	0.0	0.0	0.0	0.0	0.0	-	-
97.0	60.0	0.0	84.7	187.2	19.0	8.1	0.0	0.0	-	-	-	-
97.0	70.0	0.0	209.4	33.8	3.7	0.0	0.0	0.0	-	-	-	-
97.0	80.0	0.0	644.5	11.2	0.0	0.0	0.0	0.0	-	-	-	-
97.0	90.0	0.0	4.9	17.6	0.0	0.0	0.0	-	-	-	-	-
100.0	30.0	0.0	11.3	1.7	0.0	4.2	-	0.0	0.0	0.0	-	0.0
100.0	40.0	0.0	27.0	1576.4	10.9	0.0	0.0	0.0	0.0	0.0	-	-
100.0	50.0	0.0	5.8	535.7	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	60.0	0.0	3.9	38.4	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	0.0	1057.6	264.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0	80.0	0.0	9515.8	103.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
100.0	90.0	0.0	595.1	10.4	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0	100.0	0.0	18.8	3.1	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0	35.0	-	0.0	3.2	0.0	-	0.0	-	-	-	-	-
103.0	40.0	-	60.8	125.7	22.3	0.0	-	-	0.0	0.0	0.0	-
103.0	50.0	0.0	295.7	128.8	11.4	0.0	-	-	0.0	0.0	0.0	-
103.0	60.0	0.0	2692.0	3.7	2.0	1.7	-	-	-	-	-	-
103.0	70.0	0.0	1522.1	153.2	2.1	0.0	-	-	-	-	-	-
103.0	80.0	1.7	265.9	5.1	0.0	0.0	-	-	-	-	-	-
103.0	90.0	0.0	13416.8	71.4	0.0	-	-	-	-	-	-	-
105.0	50.0	-	-	-	-	-	-	0.0	-	-	-	-
105.0	60.0	-	-	-	-	-	-	0.0	-	-	-	-
105.0	70.0	-	-	-	-	-	-	-	-	-	-	-
105.0	80.0	-	-	-	-	-	-	-	-	-	-	-
105.0	90.0	-	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	130.3	107.2	5.9	0.0	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	1729.0	287.8	13.3	0.0	-	-	0.0	0.0	0.0	-
107.0	50.0	0.0	2.9	6.2	18.1	0.0	-	-	-	-	-	-
107.0	60.0	0.0	0.0	6.5	1.8	0.0	-	-	-	-	-	-
107.0	70.0	0.0	20.6	303.5	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	425.9	992.2	0.0	0.0	-	-	-	-	-	-
110.0	33.0	-	-	-	-	-	-	-	0.0	0.0	14.2	0.0
110.0	35.0	0.0	2.6	2.0	14.3	0.0	-	0.0	0.0	2.9	0.0	0.0
110.0	40.0	0.0	7.8	3.6	1.3	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	50.0	0.0	261.8	3.5	5.9	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	5.2	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	7.5	10.5	1.7	25.9	-	0.0	0.0	0.0	-	-
110.0	80.0	0.0	0.0	123.5	4.0	6.8	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	30.6	0.0	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	0.0	3.6	0.0	0.0	-	-	-	-	-	-
113.0	35.0	0.0	246.6	2.4	6.3	0.0	-	-	-	-	-	-
113.0	40.0	0.0	-	5.6	0.0	0.0	-	-	-	-	-	-
113.0	50.0	0.0	0.0	16.6	0.0	0.0	-	-	-	-	-	-



TABLE 4. (cont.)

*Merluccius productus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0	60.0	0.0	0.0	31.2	1.9	13.9	-	-	-	-	-	-
113.0	70.0	0.0	20.5	4.8	0.0	5.5	-	-	-	-	-	-
115.0	30.0	-	-	-	-	-	-	1.9	5.6	0.0	0.0	26.3
115.0	35.0	-	-	-	-	-	-	0.0	8.1	0.0	0.0	8.8
117.0	35.0	242.5	102.1	14.1	0.0	0.0	-	-	-	-	-	-
117.0	40.0	54.5	154.2	153.9	1.7	1.7	-	-	-	-	-	-
117.0	50.0	0.0	33.8	18.6	0.0	0.0	-	-	-	-	-	-
117.0	60.0	0.0	2.6	39.2	4.7	0.0	-	-	-	-	-	-
117.0	70.0	0.0	5.3	0.0	1.5	2.1	-	-	-	-	-	-
120.0	35.0	31.5	31.9	0.0	59.8	10.0	0.0	0.0	-	0.0	0.0	0.0
120.0	45.0	0.0	54.7	29.5	35.3	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0	50.0	0.0	13.0	3.7	3.8	0.0	5.0	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	11.0	4.1	3.6	0.0	4.1	0.0	-	0.0	0.0	-
120.0	70.0	0.0	0.0	57.8	0.0	0.0	0.0	0.0	-	0.0	0.0	-
123.0	40.0	0.0	5.1	1.7	4.9	-	0.0	0.0	0.0	-	0.0	0.0
123.0	50.0	0.0	2.7	7.7	0.0	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	0.0	3.4	0.0	-	0.0	0.0	-	-	-	-
127.0	40.0	0.0	9.8	90.9	38.9	6.8	0.0	0.0	0.0	0.0	0.0	-
127.0	50.0	0.0	0.0	0.0	2.6	-	1.8	0.0	0.0	-	-	-
130.0	35.0	0.0	4.7	114.4	3.7	1.5	-	-	0.0	0.0	0.0	-
130.0	40.0	0.0	3.9	24.4	0.0	0.9	-	-	0.0	0.0	0.0	-
130.0	50.0	0.0	0.0	1.9	1.7	0.0	-	0.0	0.0	0.0	0.0	-
133.0	30.0	34.2	68.4	11.3	4.3	0.0	-	0.0	0.0	0.0	-	-
133.0	40.0	6.6	17.2	8.9	15.2	0.0	-	0.0	-	-	-	-
133.0	50.0	8.5	0.0	0.0	4.0	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	12.4	0.0	1.9	0.0	-	-	-	-	-	-
137.0	35.0	0.0	340.7	73.0	1.9	0.0	0.0	-	-	-	-	-
137.0	40.0	0.0	140.9	0.0	9.3	0.0	0.0	0.0	-	-	-	-
137.0	50.0	0.0	261.8	0.0	0.0	0.0	-	-	-	-	-	-
137.0	60.0	0.0	11.6	0.0	0.0	0.0	-	-	-	-	-	-
140.0	35.0	-	31.5	-	-	0.0	-	-	0.0	-	-	-
140.0	40.0	-	10.3	-	-	0.0	-	-	0.0	-	-	-
140.0	50.0	-	4.0	-	-	0.0	-	-	0.0	-	-	-
143.0	30.0	-	6.6	-	-	0.0	-	-	0.0	-	-	-
143.0	35.0	-	8.7	-	-	3.8	-	-	0.0	-	-	-
143.0	40.0	-	3.8	-	-	0.0	-	-	-	-	-	-
147.0	50.0	-	11.2	-	-	0.0	-	-	-	-	-	-
147.0	25.0	-	3.2	-	-	-	-	-	0.0	-	-	-
147.0	30.0	-	33.3	-	-	0.0	-	-	0.0	-	-	-
147.0	40.0	-	28.6	-	-	0.0	-	-	0.0	-	-	-
150.0	40.0	-	11.5	-	-	0.0	-	-	-	-	-	-
150.0	70.0	-	1.7	-	-	0.0	-	-	0.0	-	-	-
150.0	80.0	-	28.9	-	-	0.0	-	-	0.0	-	-	-
157.0	10.0	-	0.0	-	-	2.0	-	-	0.0	-	-	-
157.0	10.0	-	1.5	-	-	0.0	-	-	0.0	-	-	-

TABLE 4. (cont.)

## Moridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
150.0 70.0	-	-	28.9	-	-	0.0	-	-	0.0	-	-	-

*Physiculus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
147.0 30.0	-	-	0.0	-	-	19.9	-	-	0.0	-	-	-
147.0 40.0	-	-	0.0	-	-	15.5	-	-	-	-	-	-
150.0 40.0	-	-	0.0	-	-	7.7	-	-	0.0	-	-	-
150.0 70.0	-	-	0.0	-	-	3.6	-	-	0.0	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	5.0	-	-	-
153.0 20.0	-	-	4.2	-	-	0.0	-	-	0.0	-	-	-
153.0 40.0	-	-	4.7	-	-	0.0	-	-	-	-	-	-
157.0 40.0	-	-	14.8	-	-	0.0	-	-	-	-	-	-
157.0 50.0	-	-	1.8	-	-	0.0	-	-	-	-	-	-

## Macrouridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
61.0 55.0	0.0	-	-	0.0	1.7	0.0	0.0	-	-	-	-	-
110.0 70.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
117.0 40.0	0.0	0.0	0.0	3.2	0.0	0.0	-	-	-	-	-	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.8	-	0.0	0.8	0.0	0.0	-
150.0 25.0	-	-	0.0	-	-	2.4	-	-	0.0	-	-	-

## Ophidiiformes

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 45.0	-	-	-	-	-	-	1.6	-	-	-	-	-
73.0 61.0	0.0	-	-	0.0	0.0	0.0	8.8	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	3.6	7.6	-	-	-	-	-
80.0 55.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-
80.0 60.0	0.0	0.0	0.0	0.0	-	3.0	-	0.0	0.0	-	0.0	0.0
83.0 55.0	-	0.0	-	0.0	1.6	-	-	-	0.0	-	-	-
83.0 70.0	0.0	-	-	0.0	2.1	-	-	-	-	-	-	-
83.0 80.0	0.0	-	-	0.0	-	3.8	-	-	-	-	-	-
87.0 35.0	0.0	0.0	-	0.0	1.8	-	-	0.0	-	-	-	-
87.0 40.0	0.0	0.0	-	0.0	0.9	-	-	-	-	-	-	-
87.0 50.0	-	-	-	0.0	1.4	0.0	-	-	-	-	-	-
90.0 30.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	-
93.0 27.0	-	-	-	-	-	-	-	0.0	0.0	0.6	-	0.0
93.0 40.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	-	0.0
97.0 30.0	-	-	-	-	-	-	-	0.0	0.0	0.0	-	1.5
100.0 29.0	-	-	-	-	-	-	-	0.0	0.0	0.7	-	0.0

TABLE 4. (cont.)

## Ophidiiformes (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	30.0	0.0	0.0	0.0	3.5	0.0	-	0.0	0.0	0.0	-	0.0
100.0	50.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.9	2.6	0.0
115.0	27.0	-	-	-	-	-	-	0.0	0.0	0.0	4.0	7.7
115.0	30.0	-	-	-	-	-	-	0.0	0.0	0.0	0.0	5.8
115.0	35.0	-	-	-	-	-	-	0.0	0.0	5.7	0.0	5.9
117.0	40.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-
117.0	50.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	0.0	-	0.0	10.7	0.0
120.0	30.0	-	-	-	-	-	-	0.9	-	9.7	15.1	3.3
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	275.5	-	4.9	4.8	1.7
123.0	37.0	-	-	-	-	-	0.0	1.6	4.2	-	8.9	0.0
123.0	40.0	0.0	0.0	0.0	1.0	-	0.0	0.0	0.0	-	2.5	1.3
127.0	34.0	-	-	-	-	-	0.0	4.9	8.0	5.8	19.6	-
127.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	-
130.0	30.0	-	-	-	-	-	-	15.4	9.9	0.0	3.1	-
130.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	6.7	0.0	-
133.0	25.0	-	-	-	-	-	-	2.5	14.8	5.2	0.0	-
133.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	13.8	-
133.0	40.0	0.0	0.0	0.0	0.0	0.0	-	4.7	-	-	-	-
137.0	23.0	-	-	-	-	-	-	63.5	5.1	14.3	2.1	-
140.0	30.0	-	-	-	-	-	-	-	65.3	-	-	-
140.0	35.0	-	-	-	-	0.0	-	-	2.6	-	-	-
143.0	30.0	-	-	-	-	0.0	-	-	3.5	-	-	-
150.0	25.0	-	-	-	-	2.4	-	-	0.0	-	-	-
157.0	10.0	-	-	-	-	4.4	-	-	0.0	-	-	-

*Brosomphycis marginata*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
57.0	64.0	-	-	-	-	-	4.0	-	-	-	-	-
60.0	55.0	-	-	-	-	-	-	1.5	-	-	0.0	-
83.0	55.0	0.0	-	0.0	2.2	-	-	-	0.0	-	-	-
87.0	35.0	-	-	0.0	1.9	-	-	0.0	-	-	-	-
87.0	50.0	-	-	0.0	4.1	0.0	-	-	-	-	-	-
90.0	45.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0	0.0	0.0
93.0	30.0	0.0	1.6	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-
117.0	40.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-	-

## Carapidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
150.0	25.0	-	-	-	-	0.0	-	-	0.0	-	-	-
153.0	20.0	-	1.4	-	-	4.4	-	-	0.0	-	-	-
			0.0	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Chilara taylori*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.1	0.0	0.0
110.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.6	0.0
120.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	-
127.0 34.0	-	-	-	-	-	-	-	0.0	1.6	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	3.2	0.0	0.0	-
137.0 50.0	1.7	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-

*Ophidion scrippsae*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 28.0	-	-	-	-	-	-	-	0.0	0.0	1.5	0.0	-
93.0 27.0	-	-	-	-	-	-	-	0.0	0.0	0.6	-	0.0
115.0 35.0	-	-	-	-	-	-	-	0.0	0.0	14.3	0.0	0.0
120.0 30.0	-	-	-	-	-	-	-	2.8	-	32.4	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	-	1.6	0.0	1.7
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	-	0.0	0.0	0.0
123.0 37.0	-	-	-	-	-	-	-	0.0	1.8	-	0.0	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	2.5	0.0
127.0 34.0	-	-	-	-	-	-	-	0.0	19.2	21.6	0.0	-
130.0 30.0	-	-	-	-	-	-	-	0.0	7.9	0.0	0.0	-
133.0 25.0	-	-	-	-	-	-	-	0.0	50.3	0.0	0.0	-
140.0 30.0	-	-	-	-	-	-	-	-	7.7	-	-	-

*Porichthys* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0 33.0	-	-	-	-	-	-	-	-	0.0	0.0	2.8	0.0
120.0 25.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0	1.7

## Antennariidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
157.0 20.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-

## Ceratioidei

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 90.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	-	-	-	-	-
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.7	0.0



TABLE 4. (cont.)

## Exocoetidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
123.0 50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	3.3	0.0	-	-	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.5	0.0	0.0	0.0	-
133.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	9.4	-	-	-	-
133.0 50.0	0.0	0.0	0.0	0.0	0.0	3.7	-	25.1	-	-	-	-
140.0 70.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	2.6	-	-	-
150.0 60.0	-	-	0.0	-	-	1.8	-	-	0.0	-	-	-

## Hemiramphidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
150.0 19.0	-	-	-	-	-	-	-	-	2.6	-	-	-
150.0 25.0	-	-	0.0	-	-	0.0	-	-	2.5	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	5.0	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	5.0	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	5.2	-	-	-

## Cololabis saira

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0 65.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	2.4	-
70.0 70.0	0.0	-	-	3.6	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0 80.0	0.0	-	-	0.0	3.2	0.0	0.0	0.0	-	0.0	0.0	-
70.0 90.0	0.0	-	-	3.5	0.0	0.0	0.0	0.0	-	0.0	-	-
77.0 65.0	0.0	-	-	0.0	0.0	8.0	0.0	0.0	-	0.0	0.0	0.0
80.0 80.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
87.0 70.0	0.0	-	-	1.8	0.0	0.0	-	-	-	-	-	-
90.0 30.0	0.0	0.0	0.0	1.5	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	4.8	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0 80.0	0.0	1.7	0.0	1.2	0.0	0.0	0.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	3.7	0.0	0.0	0.0	1.7	0.0	-	-	-	-
90.0 110.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-	-
90.0 120.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-	-	-	-
93.0 30.0	0.0	0.0	0.0	6.1	0.0	-	1.8	0.0	0.0	0.0	-	0.0
93.0 50.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	2.0	0.0	0.0	1.5	-	0.0	-	-	-	-
93.0 70.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
93.0 80.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	3.8	0.0	0.0	2.0	0.0	-	-	-	-	-
97.0 40.0	0.0	0.0	5.4	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	0.0
97.0 50.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0 70.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2.6	-	-	-	-

TABLE 4. (cont.)

*Cololabis saira* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	80.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-
97.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
100.0	40.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	-
100.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	80.0	1.9	0.0	0.0	0.0	5.5	0.0	-	0.0	0.0	-	-
100.0	90.0	1.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-
100.0	100.0	3.8	0.0	0.0	0.0	-	0.0	-	-	-	-	-
103.0	70.0	1.7	0.0	1.7	0.0	0.0	-	-	-	-	-	-
105.0	50.0	-	0.0	-	-	0.0	-	0.0	-	-	-	-
107.0	70.0	0.0	0.0	0.0	0.0	2.2	-	0.0	-	-	-	-
110.0	50.0	0.0	4.8	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	2.6	0.0	0.0	0.0	-	0.0	0.0	0.0	2.5	0.0
113.0	35.0	0.0	11.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	50.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	60.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	-	2.8	0.0	-
123.0	60.0	4.4	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	0.0	-	2.3	0.0	0.0	-	-
133.0	50.0	0.0	0.0	0.0	0.0	0.0	-	2.5	-	-	-	-

## Atherinidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
85.0	38.0	-	-	-	-	-	-	2.6	0.0	-	0.0	0.0
100.0	29.0	-	-	-	-	-	-	0.0	0.0	0.0	-	2.5

## Trachipteridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	60.0	-	-	-	-	-	9.2	0.0	-	-	-	-
50.0	100.0	-	-	-	-	-	1.6	-	-	-	-	-
60.0	110.0	-	-	1.9	0.0	0.0	0.0	-	-	-	-	-
70.0	70.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	-
70.0	80.0	0.0	-	0.0	0.0	7.3	0.0	0.0	-	0.0	3.3	-
70.0	110.0	-	-	0.0	0.0	3.6	0.0	-	-	0.0	-	-
77.0	65.0	0.0	-	0.0	0.0	4.0	0.0	0.0	-	0.0	0.0	0.0
80.0	70.0	0.0	0.0	0.0	-	3.3	0.0	0.0	0.0	-	0.0	0.0
80.0	80.0	0.0	0.0	1.6	-	0.0	0.0	3.0	0.0	-	0.0	-
80.0	90.0	0.0	2.4	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	130.0	0.0	1.6	0.0	-	0.0	0.0	-	-	-	-	-
83.0	60.0	0.0	-	3.0	3.6	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	1.7	2.1	-	-	-	-	-	3.2	-
85.0	60.0	-	-	-	-	-	-	-	0.0	-	0.0	-
90.0	70.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-
90.0	120.0	0.0	0.0	1.6	0.0	-	-	0.0	-	-	-	-

TABLE 4. (cont.)

## Trachipteridae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 70.0	0.0	0.0	0.0	0.0	0.0	1.0	-	0.0	-	-	-	-
93.0 90.0	0.0	0.0	1.9	1.8	0.0	0.0	0.0	-	-	-	-	-
97.0 70.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-
100.0 40.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
100.0 60.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0
100.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	0.0
110.0 40.0	0.0	0.0	0.0	0.0	0.0	1.6	-	0.0	0.0	0.0	0.0	0.0
110.0 50.0	0.0	0.0	2.4	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.8	0.0	0.0

*Melamphaes* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 100.0	-	-	-	-	-	-	1.6	-	-	-	-	-
50.0 100.0	-	-	-	-	-	-	1.6	-	-	-	-	-
50.0 110.0	-	-	-	-	-	-	1.5	-	-	-	-	-
57.0 64.0	-	-	-	-	-	-	4.0	-	-	-	-	-
60.0 70.0	-	-	-	4.5	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-
60.0 80.0	-	-	-	4.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 90.0	-	-	-	0.0	7.3	0.0	1.7	0.0	0.0	0.0	0.0	-
60.0 100.0	-	-	-	0.0	0.0	6.9	0.0	0.0	0.0	-	0.0	-
60.0 110.0	-	-	-	1.9	0.0	1.8	0.0	-	-	-	-	-
60.0 120.0	-	-	-	-	-	3.6	0.0	-	-	-	-	-
60.0 130.0	-	-	-	-	-	2.0	-	-	-	-	-	-
63.0 67.0	0.0	-	-	0.0	-	3.4	0.0	0.0	-	-	0.0	-
67.0 55.0	0.0	-	-	0.0	0.0	3.6	0.0	0.0	-	-	1.4	-
67.0 65.0	0.0	-	-	13.7	0.0	0.0	1.8	0.0	-	-	0.0	-
70.0 60.0	0.0	-	-	0.0	0.0	4.1	3.4	0.0	0.0	0.0	0.0	-
70.0 70.0	0.0	-	-	7.3	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-
70.0 80.0	0.0	-	-	0.0	0.0	0.0	3.0	0.0	0.0	0.0	-	-
70.0 90.0	0.0	-	-	10.6	1.8	0.0	5.0	0.0	-	-	-	-
70.0 100.0	-	-	-	3.6	1.7	3.6	0.0	-	-	-	-	-
70.0 110.0	-	-	-	1.8	-	20.6	9.5	-	-	-	-	-
70.0 120.0	-	-	-	-	-	12.2	-	-	-	-	-	-
70.0 130.0	-	-	-	-	-	-	-	-	-	-	-	-
73.0 60.0	-	-	-	-	-	-	-	1.3	-	0.0	0.0	-
73.0 61.0	0.0	-	-	7.2	0.0	1.8	1.8	-	-	0.0	3.1	0.0
77.0 55.0	0.0	-	-	3.7	0.0	0.0	1.9	0.0	-	0.0	0.0	-
77.0 65.0	0.0	-	-	0.0	1.8	0.0	2.3	0.0	-	0.0	0.0	0.0
80.0 55.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	0.0	-	0.0	0.0
80.0 60.0	0.0	0.0	0.0	0.0	-	0.0	-	3.0	1.1	-	0.0	0.0
80.0 70.0	0.0	0.0	0.0	3.4	-	0.0	0.0	0.0	0.0	-	0.0	0.0
80.0 80.0	0.0	1.8	0.0	0.0	-	3.6	1.7	0.0	0.0	-	0.0	-
80.0 90.0	0.0	1.8	4.8	3.9	-	1.7	1.7	-	0.0	-	0.0	-

TABLE 4. (cont.)

*Melamphaes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 100.0	-	3.7	0.0	0.0	-	1.6	1.7	-	0.0	-	3.3	-
80.0 110.0	-	3.8	1.8	1.9	-	4.8	0.0	-	-	-	-	-
80.0 120.0	-	5.0	3.9	0.0	-	-	-	-	-	-	-	-
80.0 130.0	-	0.0	0.0	1.8	-	-	-	-	0.0	-	-	-
83.0 55.0	-	0.0	-	0.0	1.4	-	-	-	0.0	-	-	-
83.0 60.0	1.7	0.0	-	10.3	0.0	-	-	-	0.0	-	-	-
83.0 70.0	0.0	-	-	0.0	-	11.3	-	-	-	-	-	-
83.0 80.0	0.0	-	-	1.6	-	0.0	-	-	-	-	-	-
83.0 90.0	1.6	-	-	3.8	0.0	5.6	-	-	-	-	-	-
87.0 60.0	2.1	-	-	0.0	1.7	2.2	-	-	-	-	-	-
87.0 70.0	0.0	-	-	0.0	0.0	4.2	-	-	-	-	-	-
87.0 80.0	0.0	-	-	3.6	1.9	0.0	-	-	-	-	-	-
87.0 90.0	0.0	-	-	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
90.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 45.0	0.0	1.7	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	2.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	1.4	7.8	19.1	0.0	0.0	0.0	0.0	0.0	0.0
90.0 70.0	0.0	0.0	3.0	5.5	3.5	0.0	0.0	2.7	0.0	-	0.0	-
90.0 80.0	0.0	0.0	0.0	0.0	6.2	1.8	0.0	0.0	-	-	-	-
90.0 90.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	-	-	-	-
90.0 110.0	0.0	0.0	3.3	1.5	0.0	1.8	0.0	-	-	-	-	-
90.0 120.0	0.0	0.0	0.0	4.8	0.0	-	-	0.0	0.0	0.0	0.0	0.0
93.0 30.0	0.0	0.0	0.0	1.5	1.9	-	0.0	0.0	0.0	0.0	-	-
93.0 40.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	-
93.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
93.0 60.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	2.6	0.0	1.1	-	-
93.0 70.0	0.0	3.4	0.0	3.6	3.5	0.0	-	0.0	-	-	-	-
93.0 80.0	0.0	0.0	0.0	0.0	7.0	2.0	4.3	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	16.8	2.0	0.0	0.0	0.0	-	-	-
97.0 32.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	-	0.0
97.0 50.0	0.0	1.7	1.6	1.6	0.0	0.0	0.0	2.5	0.0	-	-	-
97.0 60.0	0.0	0.0	0.0	1.8	0.0	2.3	0.0	0.0	-	-	-	-
97.0 70.0	1.9	1.5	2.7	3.4	1.9	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	5.3	1.6	0.0	0.0	0.0	-	-	-	-
97.0 90.0	0.0	0.0	0.0	3.5	7.2	3.2	0.0	-	0.0	-	-	-
100.0 40.0	0.0	0.0	0.0	0.0	5.4	1.9	0.0	0.0	0.0	0.0	-	-
100.0 50.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.6	0.0	0.0	0.0
100.0 60.0	0.0	1.9	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	2.8
100.0 70.0	1.9	0.0	0.0	1.5	0.0	7.2	0.0	0.0	0.0	2.7	-	0.0
100.0 80.0	0.0	1.9	1.7	1.5	4.9	1.8	3.8	-	0.0	0.0	0.0	-
100.0 90.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	-	2.6	-	-	-
100.0 100.0	0.0	-	0.0	1.6	0.0	-	-	-	-	-	-	-
100.0 110.0	0.0	-	-	3.0	1.9	-	-	-	-	-	-	-
100.0 120.0	0.0	-	-	0.0	4.0	-	-	-	-	-	-	-



TABLE 4. (cont.)

*Melamphaes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	35.0	-	0.0	2.1	0.0	0.0	-	-	0.0	0.0	0.0	-
103.0	50.0	5.2	0.0	0.0	2.0	0.0	-	-	-	-	-	-
103.0	60.0	0.0	0.0	0.0	2.1	5.2	-	-	-	-	-	-
103.0	70.0	0.0	0.0	0.0	4.0	3.7	-	-	-	-	-	-
107.0	35.0	-	0.0	0.0	0.0	1.8	-	-	2.7	0.0	0.0	-
107.0	70.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	-	0.0	3.3	0.0	2.0	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	0.0
110.0	50.0	0.0	2.4	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	80.0	2.1	0.0	0.0	2.0	0.0	0.0	-	-	-	-	-
110.0	90.0	1.2	0.0	3.6	0.0	0.0	0.0	-	-	-	-	-
110.0	100.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-	-
113.0	40.0	0.0	-	0.0	1.9	1.9	-	-	-	-	-	-
113.0	50.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
113.0	70.0	0.0	0.0	2.4	0.0	0.0	-	-	-	-	-	-
117.0	35.0	0.0	0.0	0.0	1.4	0.0	-	-	-	-	-	-
117.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	50.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
117.0	70.0	0.0	0.0	0.0	0.0	2.1	-	-	-	-	-	-
120.0	60.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	2.7	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	-
120.0	90.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-
120.0	110.0	0.0	0.0	0.0	0.0	1.8	-	-	0.0	-	-	-
123.0	50.0	2.9	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	2.8	-
127.0	40.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
127.0	50.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	-	-	-
130.0	40.0	0.0	0.0	0.0	0.0	1.8	-	2.3	0.0	0.0	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	0.0	-	2.5	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-
130.0	80.0	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
130.0	90.0	-	0.0	-	-	1.8	-	-	5.1	-	-	-
140.0	70.0	-	0.0	-	-	0.0	-	-	-	-	-	-
140.0	90.0	-	1.7	-	-	1.9	-	-	0.0	-	-	-
143.0	35.0	-	0.0	-	-	2.1	-	-	0.0	-	-	-
147.0	25.0	-	0.0	-	-	0.0	-	-	0.0	-	-	-
150.0	25.0	-	1.9	-	-	0.0	-	-	0.0	-	-	-
150.0	50.0	-	3.6	-	-	0.0	-	-	0.0	-	-	-
150.0	60.0	-	0.0	-	-	1.8	-	-	0.0	-	-	-
150.0	70.0	-	-	-	-	-	-	-	2.5	-	-	-
153.0	16.0	-	-	-	-	4.1	-	-	-	-	-	-
153.0	40.0	-	0.0	-	-	0.0	-	-	0.0	-	-	-
157.0	20.0	-	1.5	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Poromitra* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 90.0	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	-	3.2	-

*Scopelogadus bispinosus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	-	2.6
123.0 60.0	0.0	0.0	0.0	0.0	0.0	-	1.6	2.4	-	-	-	-

*Macroramphosus gracilis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0

*Syngnathus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 51.0	-	-	-	-	-	-	0.0	-	2.3	-	0.0	0.0
80.0 55.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-	0.9	-	0.0	-
85.0 40.0	-	-	0.0	-	-	-	0.0	0.0	0.0	-	2.9	0.0
90.0 28.0	-	-	-	-	-	-	-	0.0	0.0	0.0	5.8	-

## Agonidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0 52.0	-	-	-	-	-	-	-	1.9	-	-	0.0	-
105.0 35.0	0.0	0.0	-	-	-	-	-	2.5	-	-	-	-

## Cottidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
57.0 55.0	-	-	-	-	-	-	-	2.2	-	-	-	-
60.0 60.0	1.8	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
61.0 55.0	0.0	-	-	0.0	1.7	0.0	0.0	0.0	-	-	-	-
63.0 52.0	-	-	-	-	-	-	-	3.8	-	-	0.0	-
67.0 50.0	-	-	-	-	-	-	-	1.5	-	-	0.0	-
73.0 51.0	0.0	-	-	0.0	0.0	2.7	0.0	-	-	-	-	-
77.0 50.0	-	-	-	-	-	-	-	0.7	-	0.0	0.0	-
80.0 51.0	-	-	-	-	-	-	0.0	-	0.8	-	0.0	0.0
83.0 43.0	-	-	-	-	-	-	-	-	-	-	0.0	4.5
85.0 38.0	-	-	-	-	-	-	-	0.0	0.0	-	0.0	2.2
87.0 50.0	-	-	-	10.6	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

## Cottidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 30.0	0.0	0.0	1.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
93.0 40.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	-	0.0
97.0 30.0	-	-	-	-	-	-	-	1.0	0.0	0.0	-	0.0
100.0 29.0	-	-	-	-	-	-	-	0.0	0.0	0.0	-	2.5
100.0 30.0	0.0	0.0	0.0	0.0	0.0	4.2	-	0.0	0.0	0.0	-	0.0
105.0 32.0	-	-	-	-	-	-	-	3.5	-	-	-	-
117.0 50.0	0.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-	-	-
120.0 35.0	0.0	0.0	0.0	0.0	27.4	0.0	0.0	1.2	-	0.0	0.0	0.0
127.0 40.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-	-
137.0 35.0	0.0	0.0	16.3	0.0	0.0	0.0	0.0	-	-	-	-	-
137.0 50.0	0.0	0.0	2.2	0.0	0.0	0.0	-	0.0	-	-	-	-

*Scorpaenichthys marmoratus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 55.0	-	-	-	-	-	-	-	1.5	-	-	0.0	-
60.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	2.4	0.0	-
80.0 51.0	-	-	-	-	-	-	0.0	-	0.0	-	0.0	3.0
90.0 45.0	0.0	0.0	2.7	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
117.0 40.0	0.0	0.0	0.0	1.6	0.0	0.0	-	-	-	-	-	-

## Cyclopteridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 38.0	-	-	-	-	-	-	-	1.5	-	-	-	-
40.0 50.0	-	-	-	-	-	-	1.9	0.0	-	-	-	-
60.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	-
80.0 55.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-

## Hexagrammidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 30.0	0.0	0.0	1.6	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0

## Scorpaenidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 30.0	-	-	-	-	-	-	-	1.9	-	0.0	0.0	0.0
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	-	0.0	0.0	0.0
120.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	-	0.0	0.0	0.0
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	-

TABLE 4. (cont.)

## Scorpaenidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	0.0	0.0	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	-
123.0 37.0	-	-	-	-	-	-	-	0.0	1.2	-	0.0	0.0
140.0 35.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	2.6	-	-	-

*Sebastes* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 45.0	-	-	-	-	-	-	1.6	-	-	-	-	-
40.0 50.0	-	-	-	-	-	-	7.5	18.5	-	-	-	-
40.0 60.0	-	-	-	-	-	-	101.2	0.0	-	-	-	-
40.0 70.0	-	-	-	-	-	-	-	5.9	-	-	-	-
43.0 42.0	-	-	-	-	-	-	-	2.7	-	-	-	-
43.0 50.0	-	-	-	-	-	-	-	4.5	-	-	-	-
43.0 60.0	-	-	-	-	-	-	26.9	12.2	-	-	-	-
47.0 50.0	-	-	-	-	-	-	-	12.0	-	-	-	-
47.0 55.0	-	-	-	-	-	-	28.4	-	-	-	-	-
47.0 60.0	-	-	-	-	-	-	54.0	4.9	-	-	-	-
50.0 50.0	-	-	-	-	-	-	-	5.1	-	-	-	-
50.0 60.0	-	-	-	-	-	-	-	7.6	-	-	-	-
50.0 70.0	-	-	-	-	-	-	14.5	9.5	-	-	-	-
50.0 80.0	-	-	-	-	-	-	17.8	0.0	-	-	-	-
50.0 90.0	-	-	-	-	-	-	14.4	-	-	-	-	-
53.0 54.0	-	-	-	-	-	-	46.0	-	-	-	-	-
53.0 55.0	-	-	-	-	-	-	-	2.8	-	-	-	-
53.0 64.0	-	-	-	-	-	-	11.2	-	-	-	-	-
53.0 65.0	-	-	-	-	-	-	-	8.6	-	-	-	-
57.0 54.0	-	-	-	-	-	-	6.7	-	-	-	-	-
57.0 55.0	-	-	-	-	-	-	-	8.8	-	-	-	-
57.0 64.0	-	-	-	-	-	-	43.8	-	-	-	-	-
57.0 65.0	-	-	-	-	-	-	-	10.4	-	-	-	-
60.0 55.0	-	-	-	-	-	-	-	78.4	-	-	0.0	-
60.0 60.0	45.8	-	-	16.5	0.0	7.5	16.0	58.3	3.3	0.0	2.5	-
60.0 70.0	-	-	-	9.0	1.9	6.8	46.2	9.5	0.0	4.4	19.3	-
60.0 80.0	-	-	-	13.1	0.0	17.4	0.0	2.6	18.4	0.0	0.0	-
60.0 90.0	-	-	-	14.5	14.6	0.0	3.5	3.0	0.0	-	0.0	-
60.0 100.0	-	-	-	1.7	3.6	0.0	0.0	-	0.0	-	0.0	-
60.0 110.0	-	-	-	5.6	0.0	0.0	0.0	-	-	-	-	-
61.0 55.0	222.0	-	-	21.8	0.0	13.0	49.2	-	-	-	-	-
63.0 52.0	-	-	-	-	-	-	-	0.0	-	-	2.1	-
63.0 55.0	-	-	-	-	-	-	-	9.3	-	-	37.4	-
63.0 57.0	0.0	-	-	296.4	3.2	686.9	14.6	-	-	-	-	-
63.0 65.0	-	-	-	-	-	-	-	2.8	-	-	-	-
63.0 67.0	0.0	-	-	7.4	-	0.0	45.1	-	-	-	-	-



TABLE 4. (cont.)

*Sebastes spp. (cont.)*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	50.0	-	-	-	-	-	-	15.2	-	-	3.5	-
67.0	55.0	77.9	-	0.0	0.0	14.2	0.0	29.8	-	-	14.5	-
67.0	65.0	0.0	-	13.7	0.0	0.0	1.8	0.0	-	-	5.7	-
70.0	51.0	-	-	-	-	-	-	4.8	-	-	50.8	-
70.0	55.0	162.0	-	28.1	0.0	0.0	124.0	-	-	-	-	-
70.0	60.0	52.8	-	0.0	10.1	0.0	0.0	22.8	-	0.0	5.3	-
70.0	70.0	25.0	-	3.6	7.1	0.0	11.8	0.0	-	0.0	3.2	-
70.0	80.0	4.6	-	7.8	0.0	7.3	3.5	0.0	-	0.0	0.0	-
70.0	90.0	0.0	-	35.2	5.3	3.6	6.0	0.0	-	0.0	-	-
70.0	100.0	-	-	7.3	1.8	3.9	5.0	-	-	-	-	-
70.0	110.0	-	-	0.0	1.7	0.0	0.0	-	-	-	-	-
73.0	50.0	-	-	-	-	-	-	0.0	-	-	2.8	-
73.0	51.0	147.7	-	51.3	13.9	38.4	21.8	0.0	-	-	-	-
73.0	60.0	-	-	-	-	-	-	6.6	-	0.0	0.0	-
73.0	61.0	24.5	-	43.0	1.8	1.8	29.8	-	-	-	-	-
77.0	50.0	-	-	-	-	10.8	22.8	11.0	-	17.6	4.2	-
77.0	55.0	5.5	-	182.3	15.6	36.0	4.5	8.7	-	16.5	0.0	-
77.0	65.0	25.4	-	20.9	1.8	-	1.7	11.4	-	0.0	6.1	6.8
80.0	51.0	-	-	-	-	-	-	-	8.6	-	83.8	28.7
80.0	55.0	16.3	17.4	5.4	17.8	3.3	8.6	-	12.2	-	5.5	-
80.0	60.0	64.8	0.0	10.1	-	5.9	-	0.0	1.1	-	0.0	0.0
80.0	70.0	0.0	0.0	15.2	-	6.6	3.8	0.0	1.0	-	0.0	0.0
80.0	80.0	0.0	0.0	0.0	-	18.1	0.0	0.0	0.0	-	0.0	0.0
80.0	90.0	1.7	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	100.0	-	1.4	0.0	-	0.0	0.0	-	0.0	-	-	-
80.0	110.0	-	0.0	5.7	-	-	-	-	-	-	-	-
80.0	130.0	-	4.9	0.0	-	0.0	0.0	-	-	-	-	-
83.0	43.0	-	-	-	-	-	-	-	-	-	29.0	71.7
83.0	55.0	53.7	-	75.4	24.9	-	-	-	2.7	-	-	-
83.0	60.0	59.0	-	106.6	3.6	-	-	-	2.2	-	-	-
83.0	70.0	0.0	-	3.4	49.9	-	-	-	-	-	-	-
83.0	80.0	0.0	-	17.1	-	7.6	-	-	-	-	-	-
83.0	90.0	0.0	-	3.2	-	0.0	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	52.0	4.6	-	2.4	30.5
85.0	40.0	-	33.8	-	-	-	11.1	0.0	7.1	-	17.2	15.5
85.0	50.0	-	235.5	-	-	-	-	5.6	0.0	-	0.0	0.0
85.0	70.0	-	30.1	-	-	-	-	5.4	-	-	-	-
87.0	35.0	133.6	-	13.3	9.4	-	-	12.6	-	-	-	-
87.0	40.0	80.2	-	78.1	32.4	-	-	-	-	-	-	-
87.0	50.0	-	-	739.4	75.6	28.2	-	-	-	-	-	-
87.0	60.0	6.2	-	437.0	1.6	5.6	-	-	-	-	-	-
87.0	70.0	0.0	-	10.6	0.0	0.0	-	-	-	-	-	-
87.0	80.0	0.0	-	5.3	0.0	2.1	-	-	-	-	-	-
87.0	90.0	0.0	-	63.4	7.6	7.5	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	89.6	13.7	3.0	216.0	-
90.0	30.0	31.7	19.5	137.2	10.7	13.2	0.0	0.0	14.6	0.0	25.4	-

TABLE 4. (cont.)

## Sebastes spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	37.0	77.9	40.3	100.2	25.4	12.7	5.3	1.6	0.0	3.2	2.9	2.0
90.0	45.0	71.3	50.5	2.7	55.0	43.3	13.4	-	5.0	0.0	6.1	3.2
90.0	53.0	167.4	21.7	26.7	24.6	182.9	1.6	6.2	2.4	2.3	0.0	57.8
90.0	60.0	7.3	5.4	4.8	0.0	39.2	15.9	8.8	0.0	0.0	0.0	0.0
90.0	70.0	36.7	17.2	6.0	17.8	0.0	0.0	2.4	1.3	-	0.0	-
90.0	80.0	0.0	5.0	8.2	2.1	1.8	1.8	0.0	-	-	-	-
90.0	90.0	0.0	1.9	0.0	2.6	0.0	0.0	0.0	-	-	-	-
90.0	110.0	0.0	0.0	0.0	15.7	0.0	0.0	-	-	-	-	-
93.0	27.0	-	-	-	59.7	5.7	-	9.4	14.7	8.0	-	8.6
93.0	30.0	74.2	43.2	59.7	20.1	-	-	0.0	4.6	7.7	-	7.3
93.0	40.0	357.0	43.2	110.0	126.6	142.1	4.0	0.0	0.0	0.0	-	53.5
93.0	50.0	1.7	35.6	237.9	10.1	10.1	10.4	0.0	0.0	13.1	-	2.6
93.0	60.0	24.8	2.0	14.2	6.9	18.1	-	0.0	-	-	-	-
93.0	70.0	0.0	0.0	30.6	6.0	6.1	-	0.0	-	-	-	-
93.0	80.0	0.0	0.0	26.9	0.0	4.0	0.0	0.0	-	-	-	-
97.0	30.0	-	-	-	10.2	-	-	19.4	2.8	4.9	-	21.9
97.0	32.0	65.4	3.6	54.0	64.0	19.2	5.3	17.4	0.0	2.7	-	-
97.0	40.0	3.3	111.6	34.0	24.4	20.2	3.8	0.0	2.1	14.0	-	21.0
97.0	50.0	3.5	1.6	28.8	3.8	5.5	1.8	0.0	0.0	1.4	-	2.2
97.0	60.0	5.3	0.0	280.8	0.0	27.8	3.3	0.0	-	-	-	-
97.0	70.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-
97.0	80.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
100.0	29.0	-	-	-	-	-	-	1.7	0.0	2.1	-	7.6
100.0	30.0	57.0	95.6	263.5	43.5	67.5	-	1.8	2.4	22.8	-	8.9
100.0	40.0	25.1	9.5	278.4	79.6	0.0	1.9	0.0	0.0	0.0	-	-
100.0	50.0	0.0	1.6	148.8	12.6	0.0	0.0	4.0	0.0	0.0	0.0	0.0
100.0	60.0	3.9	1.6	3.2	200.6	6.7	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	2.6	0.0	9.4	0.0
103.0	30.0	-	-	-	-	-	-	1.0	-	1.5	-	-
103.0	35.0	-	12.2	18.5	44.7	17.7	-	-	0.0	0.0	3.1	-
103.0	40.0	6.2	0.0	17.4	22.8	2.3	-	-	0.0	0.0	0.0	-
103.0	50.0	5.2	0.0	3.7	2.0	16.8	-	-	-	-	-	-
103.0	60.0	3.6	0.0	0.0	23.2	0.0	-	-	-	-	-	-
103.0	70.0	0.0	5.5	0.0	0.0	0.0	-	-	-	-	-	-
103.0	80.0	0.0	8.6	0.0	0.0	-	-	-	-	-	-	-
105.0	32.0	19.4	-	-	-	-	-	1.7	-	-	-	-
105.0	35.0	3.2	-	-	-	-	-	0.0	-	-	-	-
105.0	50.0	1.7	-	-	-	-	-	0.0	-	-	-	-
105.0	60.0	3.9	-	-	-	-	-	2.3	-	-	-	-
105.0	70.0	10.1	-	-	-	-	-	-	-	-	-	-
105.0	80.0	-	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	37.2	6.4	2.0	1.8	-	-	0.0	4.0	42.8	-
107.0	35.0	-	0.0	9.1	14.9	0.0	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	2.9	0.0	99.5	8.3	-	-	0.0	0.0	0.0	-
107.0	50.0	-	0.0	2.2	10.8	0.0	-	-	-	-	-	-
107.0	60.0	10.0	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Sebastes spp. (cont.)*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	70.0	0.0	12.8	0.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	-	2.5	1.6	4.6	0.0	-	-	-	-	-	-
110.0	33.0	-	-	-	-	0.0	-	-	0.0	0.0	28.4	4.9
110.0	35.0	0.0	5.1	4.0	10.4	3.6	-	5.5	0.0	0.0	0.0	0.0
110.0	40.0	0.0	36.4	3.6	3.9	1.6	-	0.0	0.0	2.1	0.0	0.0
110.0	50.0	1.7	2.4	0.0	7.8	1.5	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	0.0	2.6	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	43.7	7.5	0.0	0.0	10.8	-	-	-	-	-	-
110.0	80.0	0.0	0.0	0.0	4.0	11.9	0.0	-	-	-	-	-
110.0	90.0	0.0	0.0	0.0	0.0	2.0	3.6	-	-	-	-	-
113.0	35.0	57.3	11.0	63.4	165.9	5.0	-	-	-	-	-	-
113.0	40.0	0.0	-	9.3	3.8	1.9	-	-	-	-	-	-
113.0	50.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	0.0	0.0	9.9	-	-	-	-	-	-
113.0	70.0	0.0	5.1	4.8	1.6	7.4	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	0.0	1.5	0.0	0.0	0.0
115.0	30.0	-	-	-	-	-	-	0.0	1.4	1.4	1.5	0.0
115.0	40.0	-	-	-	-	-	-	0.0	0.0	2.9	0.0	0.0
117.0	35.0	106.5	109.6	7.0	36.0	33.8	-	-	-	-	-	-
117.0	40.0	40.7	192.8	507.1	46.4	10.0	-	-	-	-	-	-
117.0	50.0	0.0	7.8	5.6	5.9	0.0	-	-	-	-	-	-
117.0	60.0	0.0	0.0	13.1	4.7	0.0	-	-	-	-	-	-
117.0	70.0	0.0	2.6	0.0	1.5	6.2	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	0.0	-	0.0	0.0	1.7
120.0	35.0	12.9	12.2	21.1	17.4	6.7	2.9	2.4	-	0.0	1.6	0.0
120.0	45.0	0.0	24.3	40.1	18.5	3.8	0.0	0.0	-	0.0	0.0	0.0
120.0	50.0	0.0	5.2	3.7	3.8	0.0	1.7	0.0	-	0.0	0.0	3.1
120.0	60.0	0.0	0.0	0.0	0.0	0.0	20.6	9.8	-	0.0	0.0	-
120.0	70.0	0.0	0.0	1.7	0.0	0.0	0.0	79.8	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	12.8	0.0	0.0	-
120.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	-
123.0	40.0	5.2	5.1	51.9	34.3	-	0.0	0.0	0.0	-	0.0	0.0
123.0	50.0	0.0	0.0	3.8	0.0	-	0.0	0.0	0.0	-	-	-
127.0	40.0	0.0	0.0	28.3	113.2	1.7	0.0	3.1	0.0	0.0	0.0	-
127.0	50.0	0.0	0.0	2.3	2.6	-	0.0	0.0	0.0	-	-	-
130.0	35.0	0.0	4.7	223.1	169.3	3.9	-	0.0	-	0.0	0.0	-
130.0	40.0	0.0	2.0	3.5	3.2	2.7	-	-	0.0	3.1	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.0	-	10.0	0.0	0.0	0.0	-
133.0	25.0	-	-	-	0.0	-	-	2.5	0.0	0.0	0.0	-
133.0	30.0	16.2	52.9	37.3	8.4	0.0	-	0.0	0.0	0.0	0.0	-
133.0	40.0	0.0	0.0	0.0	2.8	0.0	-	0.0	0.0	0.0	0.0	-
133.0	50.0	0.0	0.0	0.0	1.0	0.0	-	0.0	0.0	-	-	-
137.0	23.0	-	-	-	-	-	-	0.0	-	2.4	0.0	-
137.0	30.0	-	-	-	-	-	-	2.1	0.0	0.0	-	-
137.0	35.0	1.8	8.2	5.3	0.0	4.0	1.3	-	-	-	-	-

TABLE 4. (cont.)

*Sebastes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 40.0	0.0	0.0	5.2	0.0	7.4	0.0	1.6	0.0	-	-	-	-
137.0 50.0	0.0	0.0	6.6	0.0	1.9	0.0	-	0.0	-	-	-	-
140.0 35.0	-	-	9.3	-	-	0.0	-	-	0.0	-	-	-
140.0 40.0	-	-	0.0	-	-	3.8	-	-	0.0	-	-	-
143.0 30.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-	-
143.0 35.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-	-
143.0 40.0	-	-	3.8	-	-	0.0	-	-	-	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	2.5	-	-	-

*Sebastolobus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
50.0 60.0	-	-	-	-	-	-	0.0	2.5	-	-	-	-
60.0 80.0	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-
60.0 100.0	-	-	-	0.0	0.0	0.0	1.6	-	-	-	0.0	-
60.0 110.0	-	-	-	1.9	0.0	0.0	0.0	-	-	-	-	-
60.0 120.0	-	-	-	-	-	1.8	0.0	-	-	-	-	-
63.0 55.0	-	-	-	-	-	-	-	3.1	-	-	0.0	-
70.0 60.0	0.0	-	-	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
70.0 70.0	0.0	-	-	0.0	0.0	0.0	0.0	1.3	-	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	1.8	0.0	0.0	0.0	-	0.0	-	-
70.0 100.0	-	-	-	3.6	0.0	0.0	0.0	-	-	-	-	-
70.0 110.0	-	-	-	0.0	5.1	0.0	0.0	-	-	-	-	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	3.1	-
80.0 55.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-	0.0	-	0.0	-
80.0 70.0	0.0	0.0	0.0	0.0	-	0.0	3.8	0.0	0.0	-	0.0	-
80.0 100.0	-	0.0	2.8	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0 120.0	-	0.0	0.0	3.5	-	-	-	-	-	-	-	-
80.0 130.0	-	0.0	0.0	1.8	-	-	-	-	-	-	-	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0 70.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	-	0.0	-
90.0 80.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-	-	-	-
90.0 90.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	-	-	-	-
93.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	-	0.0
97.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	-	0.0

*Prionotus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 30.0	-	-	-	-	-	-	-	0.9	-	0.0	3.4	1.6
123.0 37.0	-	-	-	-	-	-	-	0.0	0.6	-	3.0	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	10.1	0.0
127.0 34.0	-	-	-	-	-	-	-	1.6	11.2	14.4	96.6	-



TABLE 4. (cont.)

*Prionotus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 30.0	-	-	-	-	-	-	-	0.0	11.8	18.1	1.5	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	67.2	0.0	-
133.0 25.0	-	-	-	-	-	-	-	0.0	377.4	7.0	3.2	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.8	-
137.0 23.0	-	-	-	-	-	-	-	0.0	15.4	45.4	6.2	-
140.0 30.0	-	-	-	-	-	-	-	-	126.7	-	-	-
143.0 30.0	-	-	0.0	-	-	0.0	-	-	38.1	-	-	-
147.0 25.0	-	-	0.0	-	-	0.0	-	-	1.5	-	-	-

## Blennioidei

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
117.0 35.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-	-
130.0 30.0	-	-	-	-	-	-	-	0.0	0.0	2.0	0.0	-

*Hypsoblennius* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 51.0	-	-	-	-	-	-	0.0	-	0.8	-	0.0	0.0
90.0 28.0	-	-	-	-	-	-	-	0.0	0.0	3.0	0.0	-
90.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	-
93.0 27.0	-	-	-	-	-	-	-	0.0	2.7	0.0	-	0.0
97.0 30.0	-	-	-	-	-	-	-	0.0	0.0	1.0	-	0.0
115.0 30.0	-	-	-	-	-	-	-	1.9	0.0	0.0	0.0	0.0
120.0 25.0	-	-	-	-	-	-	-	0.0	-	4.4	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
123.0 37.0	-	-	-	-	-	-	-	0.0	0.0	-	0.0	2.2
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	1.6	-	2.5	0.0
130.0 30.0	-	-	-	-	-	-	-	1.4	0.0	0.0	0.0	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.8	-	0.0	0.0	-
133.0 25.0	-	-	-	-	-	-	-	0.0	1.5	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	3.1	0.0	0.0	0.0	-
140.0 30.0	-	-	-	-	-	-	-	-	3.8	-	-	-
147.0 20.0	-	-	1.6	-	-	-	-	-	0.0	-	-	-
150.0 30.0	-	-	2.0	-	-	0.0	-	-	0.0	-	-	-

## Clinidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0 40.0	0.0	0.0	-	0.0	0.9	-	-	-	-	-	-	-
100.0 30.0	0.0	0.0	1.6	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0
127.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	-
130.0 30.0	-	-	-	-	-	-	-	0.0	0.0	2.0	0.0	-

TABLE 4. (cont.)

## Clinidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	3.1	7.7	0.0	0.0	-
143.0 40.0	-	-	0.0	-	-	4.1	-	-	-	-	-	-

Gobiidae												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 70.0	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	-
63.0 52.0	-	-	-	-	-	-	-	0.0	-	-	1.3	-
67.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	3.2	-
70.0 70.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.6	-
70.0 90.0	0.0	-	-	0.0	0.0	3.6	0.0	0.0	-	0.0	-	-
73.0 50.0	-	-	-	-	-	-	-	1.7	-	-	0.0	-
77.0 50.0	-	-	-	-	-	-	-	0.8	-	6.6	1.7	-
77.0 55.0	0.0	-	-	0.0	0.0	0.0	0.0	14.0	-	2.4	0.0	-
77.0 65.0	0.0	-	-	0.0	0.0	0.0	0.0	8.6	-	0.0	0.0	0.0
80.0 51.0	-	-	-	-	-	-	-	-	0.0	-	2.9	1.0
80.0 55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-
83.0 43.0	-	-	0.0	-	-	-	-	-	2.2	-	-	2.2
83.0 55.0	-	0.0	-	3.1	0.0	-	-	-	0.0	-	-	-
83.0 70.0	0.0	-	-	0.0	4.3	-	-	-	-	-	-	-
83.0 90.0	0.0	-	-	0.0	-	2.0	-	-	-	-	-	-
85.0 38.0	-	-	-	-	-	-	-	-	-	-	0.0	0.0
85.0 40.0	-	-	0.0	-	-	-	0.0	0.0	0.6	-	2.9	0.0
85.0 60.0	-	-	-	-	-	-	-	0.0	1.1	-	0.0	-
85.0 70.0	-	-	0.0	-	-	-	-	2.5	0.0	-	-	-
87.0 35.0	0.0	1.8	-	0.0	0.0	-	-	2.7	-	-	-	-
87.0 40.0	1.9	0.0	-	4.2	4.4	-	-	0.0	-	-	-	-
87.0 50.0	-	-	-	10.6	0.0	0.0	-	-	-	-	-	-
87.0 90.0	0.0	-	-	15.8	0.0	0.0	-	-	-	-	-	-
90.0 28.0	-	-	-	-	-	-	-	-	-	-	2.9	-
90.0 30.0	0.0	0.0	1.7	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 45.0	2.0	8.7	0.0	2.5	0.0	0.0	3.3	2.6	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
93.0 27.0	-	-	-	-	-	-	-	0.0	0.0	1.3	-	-
93.0 30.0	0.0	0.0	6.4	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-
93.0 40.0	0.0	1.8	0.0	0.0	0.0	33.7	0.0	0.0	0.0	0.0	-	-
93.0 50.0	0.0	0.0	0.0	3.7	0.0	3.4	0.0	0.0	0.0	0.0	-	-
97.0 30.0	-	-	-	-	-	-	-	-	2.8	2.1	-	-
97.0 32.0	3.5	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.3	-	-
97.0 40.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0 50.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	1.3	-	0.0
97.0 60.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	-	-	-
97.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-

TABLE 4. (cont.)

## Gobiidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	29.0	-	-	-	-	-	-	1.7	2.3	0.0	-	0.0
100.0	30.0	0.0	0.0	0.0	0.0	0.0	-	3.6	4.8	1.2	-	0.0
100.0	40.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	1.3	-	-
100.0	50.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.0	30.0	-	-	-	-	-	-	1.0	-	0.0	0.0	-
103.0	40.0	0.0	2.8	0.0	0.0	0.0	-	-	0.0	3.9	0.0	-
105.0	32.0	-	-	-	-	-	-	1.7	-	-	-	-
105.0	35.0	0.0	-	-	-	-	-	5.1	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	5.5	0.0	0.0	-
107.0	35.0	-	0.0	0.0	2.0	0.0	-	-	0.0	0.0	0.0	-
110.0	33.0	-	-	-	-	-	-	-	0.0	1.5	2.8	0.0
110.0	35.0	0.9	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	0.0	0.0	0.0	0.0	-	2.7	0.0	0.0	0.0	0.0
113.0	50.0	0.0	0.0	1.9	0.0	0.0	-	-	-	-	-	-
115.0	30.0	-	-	-	-	-	-	0.0	0.0	0.0	0.0	1.5
115.0	35.0	-	-	-	-	-	-	0.0	2.7	0.0	0.0	0.0
115.0	40.0	-	-	-	-	-	-	0.0	2.3	0.0	0.0	0.0
115.0	60.0	-	-	-	-	-	-	2.9	-	-	-	-
117.0	35.0	0.0	0.0	0.0	0.0	1.9	-	5.7	-	1.6	0.0	1.6
120.0	30.0	-	-	-	-	-	-	6.5	-	0.0	0.0	0.0
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0	45.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	0.0	0.0	-
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0
123.0	37.0	-	-	-	-	-	-	0.0	0.0	-	4.4	0.0
123.0	40.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0	-	0.0	0.0
127.0	50.0	0.0	0.0	0.0	0.0	-	3.5	0.0	0.0	-	-	-
130.0	30.0	-	-	-	-	-	-	0.0	0.0	4.0	7.8	-
130.0	35.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	3.4	2.6	-
130.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	6.3	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	0.0	-
133.0	25.0	-	-	-	-	-	-	0.0	0.0	1.7	0.0	-
133.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	2.8	2.8	-
133.0	40.0	0.0	0.0	0.0	0.0	1.8	-	0.0	-	-	0.0	-
137.0	23.0	-	-	-	-	-	-	0.0	5.1	2.4	0.0	-
137.0	30.0	-	-	-	-	-	-	0.0	2.7	0.0	0.0	-
150.0	19.0	-	-	-	-	-	-	0.0	2.6	-	-	-

*Icosteus aenigmaticus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	65.0	0.0	-	6.8	0.0	0.0	0.0	0.0	-	-	0.0	-

TABLE 4. (cont.)

## Labridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	70.0	0.0	0.0	0.0	-	6.6	0.0	0.0	0.0	-	0.0	-
83.0	55.0	0.0	-	0.0	0.0	-	-	-	2.7	-	-	-
83.0	70.0	-	-	4.3	-	-	-	-	-	-	-	-
85.0	40.0	-	0.0	-	-	-	0.0	6.3	0.0	-	0.0	0.0
85.0	70.0	-	0.0	-	-	-	-	5.4	-	-	-	-
87.0	35.0	-	-	-	5.3	-	-	2.6	-	-	-	-
90.0	28.0	-	-	-	-	-	-	0.0	0.0	0.0	0.0	-
90.0	30.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	6.1	0.0	-
90.0	37.0	0.0	0.0	0.0	0.0	1.8	8.3	0.0	0.0	6.5	0.0	0.0
90.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
90.0	53.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0
93.0	27.0	-	-	-	-	-	0.0	0.0	2.7	0.0	-	0.0
93.0	30.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	0.0	-	0.0
93.0	70.0	0.0	0.0	0.0	0.0	1.0	-	0.0	-	-	-	-
97.0	30.0	-	-	-	-	-	-	1.0	2.8	0.0	-	0.0
97.0	32.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	-	-
97.0	40.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.3	-	0.0
97.0	60.0	0.0	0.0	0.0	0.0	2.3	8.1	0.0	-	-	-	-
97.0	70.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-
100.0	30.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	-	0.0
100.0	40.0	0.0	0.0	0.0	7.2	0.0	1.9	0.0	4.5	0.0	-	-
100.0	60.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.0	30.0	-	-	-	-	-	-	1.0	-	0.0	-	-
103.0	40.0	-	0.0	0.0	1.9	0.0	-	-	0.0	0.0	0.0	-
105.0	35.0	0.0	-	-	-	-	-	7.6	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	2.8	15.1	0.0	-
110.0	33.0	-	-	-	-	-	-	-	0.0	1.5	0.0	0.0
110.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.9	0.0	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	7.9	0.0	0.0	0.0	0.0
110.0	50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.5	0.0	0.0	0.0
110.0	70.0	0.0	0.0	0.0	0.0	2.2	-	-	-	-	-	-
113.0	60.0	0.0	0.0	0.0	0.0	2.0	-	-	-	-	-	-
115.0	35.0	-	-	-	-	-	-	0.0	2.7	0.0	0.0	0.0
115.0	40.0	-	-	-	-	-	-	0.0	0.0	2.9	0.0	0.0
120.0	25.0	-	-	-	-	-	-	0.9	0.0	0.0	1.5	0.0
120.0	30.0	-	-	-	-	-	-	2.8	-	3.2	0.0	0.0
120.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	3.2
123.0	37.0	-	-	-	-	-	-	4.7	4.7	0.0	32.6	0.0
123.0	40.0	0.0	0.0	0.0	2.2	-	0.0	0.0	3.2	-	7.6	4.0
123.0	50.0	0.0	0.0	0.0	0.0	-	1.8	0.0	0.0	-	-	-
127.0	34.0	-	-	-	-	-	-	0.0	0.0	0.0	1.4	-
130.0	30.0	-	-	-	-	-	-	0.0	0.0	2.0	0.0	-
130.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	13.4	0.0	-
133.0	25.0	-	-	-	-	0.0	-	0.0	1.5	0.0	0.0	-



TABLE 4. (cont.)

## Labridae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
133.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.8	-
137.0	23.0	-	-	-	-	-	-	0.0	0.0	4.8	0.0	-
137.0	30.0	-	-	-	-	-	-	0.0	0.0	0.0	2.8	-
140.0	30.0	-	-	-	-	-	-	-	7.7	-	-	-
140.0	60.0	-	1.9	-	-	0.0	-	-	0.0	-	-	-
143.0	30.0	-	0.0	-	-	0.0	-	-	3.5	-	-	-
150.0	19.0	-	-	-	-	-	-	-	5.2	-	-	-
153.0	16.0	-	-	-	-	-	-	-	24.8	-	-	-
153.0	20.0	-	0.0	-	-	0.0	-	-	10.9	-	-	-
157.0	10.0	-	0.0	-	-	0.0	-	-	5.0	-	-	-
157.0	20.0	-	0.0	-	-	0.0	-	-	12.9	-	-	-
157.0	30.0	-	1.9	-	-	0.0	-	-	-	-	-	-

*Chromis punctipinnis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	-
90.0	37.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0
93.0	30.0	0.0	0.0	0.0	0.0	-	3.6	0.0	2.3	0.0	-	0.0
93.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	-	0.0
97.0	30.0	-	-	-	-	-	-	0.0	1.4	0.0	-	0.0
97.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-	0.0
100.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.4	0.0	-	0.0
100.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2	0.0	-	0.0
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	-	0.0
103.0	30.0	-	-	-	-	-	-	3.0	-	0.0	0.0	-
103.0	35.0	-	0.0	0.0	0.0	0.0	-	-	4.7	0.0	0.0	-
105.0	32.0	-	-	-	-	-	-	1.7	-	-	-	-
105.0	35.0	0.0	-	-	-	-	-	10.2	-	-	-	-
105.0	40.0	-	-	-	-	-	-	2.7	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	55.2	40.6	0.0	-
107.0	35.0	-	0.0	0.0	0.0	0.0	-	-	0.0	2.7	0.0	0.0
110.0	33.0	-	-	-	-	-	-	-	1.7	7.4	0.0	0.0
110.0	50.0	-	0.0	0.0	0.0	0.0	-	0.0	7.4	0.0	0.0	0.0
115.0	27.0	-	-	-	-	-	-	0.0	0.0	1.6	0.0	0.0
115.0	30.0	-	-	-	-	-	-	1.9	0.0	0.0	0.0	0.0
115.0	35.0	-	-	-	-	-	-	0.0	2.7	0.0	0.0	0.0
115.0	60.0	-	-	-	-	-	-	2.9	-	-	-	-
120.0	25.0	-	-	-	-	-	-	2.8	-	0.0	0.0	0.0
120.0	30.0	-	-	-	-	-	-	2.8	-	1.6	0.0	0.0
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	-	0.0	1.6	0.0
120.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.8	0.0	0.0
123.0	40.0	0.0	0.0	0.0	0.0	-	0.0	0.0	1.4	-	0.0	0.0
127.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	-

TABLE 4. (cont.)

*Chromis punctipinnis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	3.1	0.0	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	5.5	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	5.1	0.0	0.0	-

*Mugil* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 30.0	-	-	-	-	-	-	-	2.1	0.0	0.0	0.0	-
137.0 40.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	-	-	-	-

## Apogonidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 80.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	-	-	-	-

*Brama* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0 100.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	-	6.7	-
100.0 60.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
100.0 90.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-

## Carangidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0 70.0	0.0	-	0.0	30.1	0.0	0.0	-	-	-	-	-	-
127.0 34.0	-	-	-	-	-	-	-	0.0	4.8	0.0	0.0	-
127.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	-
130.0 30.0	-	-	-	-	-	-	-	1.4	2.0	2.0	0.0	-
130.0 60.0	0.0	0.0	2.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 25.0	-	-	-	-	-	-	-	7.4	11.8	0.0	0.0	-
137.0 23.0	-	-	-	-	-	-	-	0.0	143.4	4.8	0.0	-
137.0 60.0	0.0	0.0	1.9	0.0	0.0	0.0	-	-	-	-	-	-
140.0 30.0	-	-	-	-	-	0.0	-	-	96.0	-	-	-
143.0 35.0	-	-	0.0	-	-	0.0	-	-	8.3	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-

*Trachurus symmetricus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 70.0	-	-	-	-	-	-	-	5.9	-	-	-	-

TABLE 4. (cont.)

*Trachurus symmetricus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	80.0	-	-	-	-	-	0.0	2.1	-	-	-	-
60.0	60.0	0.0	-	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	-
60.0	80.0	-	-	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	-
60.0	90.0	-	-	0.0	0.0	1.8	6.9	0.0	0.0	0.0	0.0	-
60.0	100.0	-	-	0.0	0.0	10.4	0.0	-	-	-	0.0	-
60.0	110.0	-	-	0.0	0.0	0.0	0.0	-	-	-	-	-
60.0	130.0	-	-	-	-	5.9	-	-	-	-	-	-
63.0	67.0	-	-	0.0	-	6.8	0.0	-	-	-	-	-
67.0	55.0	-	-	4.0	0.0	46.3	0.0	0.0	-	-	0.0	-
67.0	65.0	-	-	0.0	0.0	29.6	0.0	0.0	-	-	0.0	-
70.0	60.0	-	-	9.0	0.0	41.3	0.0	0.0	-	0.0	0.0	-
70.0	70.0	-	-	0.0	0.0	48.7	1.7	0.0	-	0.0	0.0	-
70.0	80.0	-	-	0.0	0.0	880.9	3.5	0.0	-	0.0	0.0	-
70.0	90.0	-	-	10.6	0.0	452.5	6.0	0.0	-	0.0	-	-
70.0	100.0	-	-	0.0	5.3	15.4	0.0	0.0	-	-	-	-
70.0	110.0	-	-	1.8	0.0	34.2	0.0	-	-	-	-	-
70.0	120.0	-	-	-	-	16.8	0.0	-	-	-	-	-
70.0	130.0	-	-	-	-	20.9	-	-	-	-	-	-
73.0	51.0	-	-	0.0	0.0	0.0	9.4	-	-	-	-	-
73.0	61.0	-	-	93.1	0.0	25.1	0.0	-	-	-	-	-
77.0	55.0	-	-	18.6	0.0	57.6	13.3	0.0	-	0.0	0.0	-
77.0	65.0	-	-	13.9	0.0	4.0	0.0	0.0	-	0.0	0.0	0.0
80.0	55.0	-	26.2	12.6	0.0	15.0	0.0	-	0.0	0.0	0.0	-
80.0	60.0	-	223.4	8.5	-	11.8	-	0.0	0.0	0.0	0.0	-
80.0	70.0	-	379.3	3.4	-	49.5	0.0	0.0	0.0	0.0	0.0	-
80.0	80.0	-	201.7	19.7	-	18.1	1.7	0.0	0.0	0.0	0.0	-
80.0	90.0	-	169.0	5.9	-	0.0	1.7	-	0.0	0.0	0.0	-
80.0	100.0	-	2.8	13.0	-	1.6	1.7	-	0.0	0.0	0.0	-
80.0	110.0	-	62.2	17.0	-	19.3	0.0	-	-	-	-	-
80.0	120.0	-	15.8	49.3	-	-	-	-	-	-	-	-
80.0	130.0	-	24.5	63.3	-	-	-	-	-	-	-	-
83.0	55.0	-	-	9.4	84.9	-	-	-	0.0	-	-	-
83.0	60.0	-	-	23.7	0.0	-	-	-	0.0	-	-	-
83.0	70.0	-	-	13.7	519.7	-	-	-	-	-	-	-
83.0	80.0	-	-	24.7	-	102.1	-	-	-	-	-	-
83.0	90.0	-	-	50.9	-	12.1	1.6	-	-	-	0.0	-
85.0	40.0	-	0.0	-	-	-	-	0.0	0.0	-	-	0.0
85.0	70.0	-	4.0	-	-	-	-	2.7	-	-	-	-
85.0	80.0	-	215.9	-	-	-	-	6.8	-	-	-	-
85.0	90.0	-	109.5	-	-	-	-	-	-	-	-	-
87.0	60.0	-	-	697.3	3.2	31.6	-	-	-	-	-	-
87.0	70.0	-	-	948.6	5.1	2.2	-	-	-	-	-	-
87.0	80.0	-	-	1019.9	5.8	4.2	-	-	-	-	-	-
87.0	90.0	-	-	1473.1	1.9	5.0	-	-	-	-	-	-
90.0	30.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-
90.0	37.0	-	12.7	2.4	0.0	7.0	4.9	1.8	0.0	0.0	0.0	0.0

TABLE 4. (cont.)

*Trachurus symmetricus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	45.0	0.0	0.0	15.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	184.5	56.3	0.0	10.3	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	38.4	19.5	168.6	9.5	0.0	0.0	0.0	0.0	0.0	0.0
90.0	70.0	0.0	72.5	256.2	0.0	0.0	0.0	2.7	0.0	-	0.0	-
90.0	80.0	0.0	4.1	42.9	4.2	16.4	2.0	26.4	-	-	-	-
90.0	90.0	0.0	217.3	7.9	21.5	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	270.5	42.5	24.2	27.7	0.0	5.5	-	-	-	-
90.0	110.0	0.0	24.8	34.3	5.9	7.2	1.8	-	-	-	-	-
90.0	120.0	0.0	11.4	32.0	50.8	-	-	-	-	-	-	-
93.0	27.0	-	-	-	-	-	-	1.4	0.0	0.0	-	0.0
93.0	30.0	0.0	0.0	0.0	0.0	-	1.8	2.5	0.0	0.0	-	0.0
93.0	40.0	0.0	43.2	12.7	5.0	7.5	10.1	2.5	0.0	0.0	-	0.0
93.0	50.0	0.0	0.0	3.7	0.0	0.0	6.2	5.2	0.0	2.2	-	0.0
93.0	60.0	0.0	31.5	42.5	12.1	40.8	-	7.8	-	-	-	-
93.0	70.0	0.0	22.1	129.6	2.0	80.8	-	1.8	-	-	-	-
93.0	80.0	0.0	107.2	417.1	57.4	84.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	38.2	130.3	31.5	30.0	3.8	-	-	-	-	-
97.0	32.0	0.0	0.0	1.4	0.0	3.0	1.8	4.4	0.0	0.0	-	0.0
97.0	40.0	0.0	14.4	1.9	0.0	1.4	3.8	0.0	0.0	2.3	-	0.0
97.0	50.0	0.0	35.4	12.8	8.9	31.3	0.0	2.5	0.0	0.0	-	-
97.0	60.0	0.0	78.0	217.8	13.3	13.9	3.3	2.6	-	-	-	-
97.0	70.0	0.0	196.1	103.1	1.9	11.4	5.9	0.0	-	-	-	-
97.0	80.0	0.0	73.8	120.0	49.5	10.9	1.8	0.0	-	-	-	-
97.0	90.0	0.0	9.9	42.2	46.8	11.3	2.0	-	-	-	-	-
100.0	30.0	0.0	4.9	3.4	7.0	0.0	-	0.0	0.0	0.0	-	0.0
100.0	40.0	0.0	0.0	45.2	39.8	1.9	7.8	0.0	0.0	1.3	-	-
100.0	50.0	0.0	1.6	126.5	123.9	0.0	0.0	2.0	0.0	0.0	0.0	0.0
100.0	60.0	0.0	1.6	25.6	857.3	11.8	5.4	2.7	0.0	0.0	0.0	0.0
100.0	70.0	0.0	98.2	139.8	3.7	3.6	0.0	0.0	2.6	0.0	-	0.0
100.0	80.0	0.0	215.0	77.5	4.9	27.6	22.8	-	0.0	0.0	0.0	-
100.0	90.0	0.0	3.1	47.7	1.7	1.9	0.0	-	0.0	0.0	-	-
100.0	100.0	-	0.0	3.2	12.6	-	25.0	-	-	-	-	-
100.0	110.0	-	-	6.0	1.9	-	-	-	-	-	-	-
100.0	120.0	-	-	0.0	6.0	-	-	-	-	-	-	-
103.0	35.0	-	0.0	33.0	54.8	1.6	-	-	0.0	0.0	0.0	-
103.0	40.0	0.0	11.2	33.1	58.9	4.7	-	-	0.0	0.0	0.0	-
103.0	50.0	0.0	61.8	31.8	0.0	39.6	-	-	-	-	-	-
103.0	60.0	0.0	43.7	20.0	2.1	11.0	-	-	-	-	-	-
103.0	70.0	0.0	99.7	22.0	18.1	-	-	-	-	-	-	-
103.0	80.0	0.0	831.1	23.8	19.3	-	-	-	-	-	-	-
105.0	50.0	0.0	-	-	-	-	-	11.5	-	-	-	-
107.0	35.0	-	0.0	11.2	0.0	14.6	-	-	0.0	0.0	0.0	-
107.0	40.0	0.0	7.4	67.0	1.7	18.6	-	-	0.0	0.0	0.0	-
107.0	50.0	0.0	11.5	2.1	5.4	1.6	-	-	-	-	-	-
107.0	60.0	1.7	10.8	0.0	1.8	0.0	-	-	-	-	-	-
107.0	70.0	0.0	18.0	0.0	1.7	2.2	-	-	-	-	-	-



TABLE 4. (cont.)

*Trachurus symmetricus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	80.0	0.0	483.8	177.1	34.2	5.9	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	0.0	0.0
110.0	40.0	0.0	0.0	1.8	1.3	1.6	-	2.6	0.0	0.0	0.0	0.0
110.0	50.0	0.0	42.8	1.7	3.9	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	60.0	0.0	10.4	5.3	3.9	5.1	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	5.0	6.3	3.4	0.0	-	-	-	-	-	-
110.0	80.0	0.0	9.9	203.8	4.0	8.5	5.6	-	-	-	-	-
110.0	90.0	0.0	2.3	117.0	11.2	0.0	7.3	-	-	-	-	-
110.0	100.0	0.0	0.0	3.6	3.7	1.5	-	-	-	-	-	-
110.0	110.0	0.0	2.4	0.0	7.6	0.0	-	-	-	-	-	-
113.0	35.0	0.0	27.4	0.0	0.0	1.7	-	-	-	-	-	-
113.0	40.0	0.0	0.0	0.0	1.9	0.0	-	-	-	-	-	-
113.0	50.0	0.0	41.8	1.9	0.0	0.0	-	-	-	-	-	-
113.0	60.0	0.0	0.0	41.6	3.8	13.9	-	-	-	-	-	-
113.0	70.0	0.0	0.0	9.6	8.0	0.0	-	-	-	-	-	-
117.0	50.0	0.0	65.0	0.0	0.0	1.9	-	-	-	-	-	-
117.0	60.0	0.0	0.0	4.4	6.3	4.7	-	-	-	-	-	-
117.0	70.0	0.0	10.5	2.2	0.0	4.1	-	-	-	-	-	-
120.0	45.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
120.0	50.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
120.0	60.0	0.0	13.8	14.2	3.6	1.8	0.0	0.0	0.0	0.0	0.0	-
120.0	70.0	0.0	26.0	20.4	3.8	3.0	2.0	0.0	0.0	0.0	0.0	-
120.0	80.0	0.0	10.8	7.9	2.1	2.2	10.1	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	2.7	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-
120.0	100.0	0.0	12.4	0.0	0.0	0.0	-	0.0	-	-	-	-
120.0	110.0	0.0	5.0	0.0	0.0	0.0	-	-	-	-	-	-
123.0	40.0	0.0	0.0	0.0	1.5	-	0.0	0.0	0.0	0.0	0.0	0.0
123.0	50.0	0.0	0.0	7.7	0.8	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	0.0	10.1	0.0	-	0.0	0.0	-	-	-	-
127.0	40.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	-
127.0	50.0	0.0	0.0	0.0	1.8	-	0.0	0.0	-	-	-	-
127.0	60.0	0.0	0.0	1.8	5.7	-	0.0	0.0	-	-	-	-
130.0	35.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	0.0	0.0	-
130.0	50.0	0.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0	0.0	-
130.0	60.0	0.0	2.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
130.0	70.0	0.0	2.2	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-
133.0	50.0	0.0	0.0	6.1	0.0	0.0	-	0.0	-	-	0.0	-
137.0	23.0	-	-	-	-	-	-	0.0	71.7	0.0	-	-
137.0	35.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	-	-	-	-
137.0	50.0	0.0	0.0	1.8	0.0	0.0	-	0.0	-	-	-	-

*Medialuna californiensis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	28.0	-	-	-	-	-	-	2.6	2.7	0.0	0.0	-

TABLE 4. (cont.)

*Medialuna californiensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.4	0.0	0.0
90.0 53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
90.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	-	-	-	-
97.0 50.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0
103.0 30.0	-	-	-	-	-	-	-	1.0	-	0.0	0.0	-
107.0 40.0	0.0	-	0.0	0.0	1.7	0.0	-	-	0.0	0.0	0.0	-
107.0 70.0	0.0	-	0.0	2.0	0.0	0.0	-	-	-	-	-	-

## Sciaenidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0 43.0	-	-	-	-	-	-	-	-	-	-	7.3	0.0
90.0 28.0	-	-	-	-	-	-	-	0.0	2.7	0.0	0.0	-
90.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	0.0	0.0	0.0	2.8	-
93.0 27.0	-	-	-	-	-	-	-	0.0	0.0	1.1	-	0.0
100.0 30.0	0.0	0.0	11.3	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0
103.0 30.0	-	-	-	-	-	-	-	0.0	-	0.0	4.1	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	-
123.0 37.0	-	-	-	-	-	-	-	0.0	0.0	-	5.9	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	1.3
127.0 34.0	-	-	-	-	-	-	-	9.8	0.0	0.0	0.0	-
130.0 30.0	-	-	-	-	-	-	-	0.0	0.0	0.0	3.1	-

## Serranidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 30.0	-	-	-	-	-	-	-	0.0	0.0	4.0	-	0.0
115.0 30.0	-	-	-	-	-	-	-	15.0	0.0	0.0	0.0	0.0
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	6.0	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	2.5	0.0
127.0 34.0	-	-	-	-	-	-	-	6.6	0.0	0.0	0.0	-
130.0 35.0	1.8	0.0	0.0	0.0	0.0	0.0	-	0.0	-	3.4	28.6	-
133.0 25.0	-	-	-	-	-	-	-	0.0	10.4	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	5.1	0.0	0.0	-
137.0 23.0	-	-	-	-	-	-	-	0.0	30.7	16.7	2.1	-
137.0 30.0	-	-	-	-	-	-	-	4.3	0.0	0.0	16.8	-
140.0 30.0	-	-	-	-	-	-	-	-	7.7	-	-	-
140.0 35.0	-	-	-	-	-	0.0	-	-	2.6	-	-	-
143.0 30.0	-	-	0.0	-	-	0.0	-	-	6.9	-	-	-
143.0 35.0	-	-	0.0	-	-	0.0	-	-	16.7	-	-	-
147.0 20.0	-	-	0.0	-	-	-	-	-	5.0	-	-	-

TABLE 4. (cont.)

## Gempylidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 90.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	-	-	-	-
97.0 80.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-	-	-	-

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 30.0	-	-	-	-	-	-	-	0.9	-	0.0	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	-	0.0	0.0	0.0
133.0 25.0	-	-	-	-	-	-	-	0.0	32.6	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	0.0	0.0	-
147.0 20.0	-	-	0.0	-	-	-	-	-	14.9	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	5.2	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	9.9	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	16.3	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	7.8	-	-	-

## Auxis spp.

## Scomber japonicus

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0 50.0	-	-	-	-	-	-	-	0.0	-	2.2	0.0	-
85.0 40.0	-	-	0.0	-	-	-	1.6	3.2	0.0	-	0.0	0.0
87.0 70.0	0.0	-	-	3.5	0.0	0.0	-	-	-	-	-	-
87.0 80.0	0.0	-	-	1.8	0.0	0.0	-	-	-	-	-	-
90.0 37.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0
93.0 30.0	0.0	0.0	0.0	0.0	0.0	-	1.8	0.0	0.0	0.0	-	0.0
93.0 60.0	0.0	0.0	0.0	1.8	0.0	0.0	-	0.0	-	-	-	0.0
97.0 50.0	0.0	0.0	0.0	0.0	6.7	20.2	0.0	0.0	0.0	0.0	-	0.0
97.0 60.0	0.0	0.0	0.0	7.2	1.7	0.0	0.0	0.0	-	-	-	0.0
100.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0
100.0 40.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0 50.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 60.0	0.0	0.0	0.0	25.6	31.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 70.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
107.0 40.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	1.3	0.0	-
107.0 80.0	0.0	-	0.0	1.6	0.0	0.0	-	-	0.0	0.0	-	0.0
110.0 35.0	0.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	-	-	0.0
113.0 60.0	0.0	0.0	0.0	0.0	0.0	2.0	-	-	0.0	0.0	-	0.0
115.0 27.0	-	-	-	-	-	-	-	1.3	0.0	0.0	0.0	0.0
115.0 30.0	-	-	-	-	-	-	-	3.8	0.0	0.0	0.0	0.0
115.0 35.0	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0
120.0 25.0	-	-	-	-	-	-	-	0.0	2.7	0.0	30.6	0.0
120.0 30.0	-	-	-	-	-	-	-	28.7	-	0.0	26.9	0.0
120.0 35.0	0.0	0.0	0.0	0.0	22.4	0.0	4.9	32.7	-	0.0	0.0	8.6
120.0 45.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	-	0.0	0.0	0.0

TABLE 4. (cont.)

*Scomber japonicus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 50.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	-	0.0	0.0	0.0
123.0 37.0	-	-	-	0.0	-	-	-	0.0	0.0	-	31.1	0.0
123.0 40.0	0.0	1.9	0.0	0.0	6.7	-	0.0	0.0	0.0	-	0.0	0.0
127.0 34.0	-	-	-	-	-	-	-	242.7	1.6	0.0	0.0	-
127.0 40.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	-
127.0 50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	4.9	0.0	-	-	-
130.0 30.0	-	-	-	-	-	-	-	74.2	0.0	0.0	0.0	-
130.0 35.0	0.0	0.0	0.0	31.5	0.0	0.0	-	0.0	-	0.0	0.0	-
130.0 40.0	0.0	0.0	0.0	0.0	3.2	0.0	-	-	0.0	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0	0.0	-
133.0 30.0	0.0	0.0	37.3	0.0	0.9	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	0.0	0.0	0.0	19.5	33.3	0.0	-	4.7	-	-	-	-
137.0 35.0	0.0	1.7	6.1	3.6	0.0	0.0	0.0	0.0	-	-	-	-
137.0 40.0	0.0	0.0	10.4	0.0	29.8	0.0	0.0	0.0	-	-	-	-
137.0 50.0	0.0	0.0	0.0	0.0	1.9	0.0	-	0.0	-	-	-	-
143.0 30.0	-	-	0.0	-	-	24.5	-	-	3.5	-	-	-
143.0 40.0	-	-	0.0	-	-	8.0	-	-	0.0	-	-	-
147.0 30.0	-	-	0.0	-	-	-	-	-	-	-	-	-

*Scomberomorus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 30.0	-	-	-	-	-	-	-	2.8	0.0	0.0	0.0	-

## Trichiuridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 29.0	-	-	-	-	-	-	-	0.0	0.0	0.0	-	2.5
110.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.5	0.0	2.6	0.0
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	-	0.0	0.0	0.0
120.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	-	0.0	0.0	3.1
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	1.1	-
120.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	-
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	2.5	0.0
123.0 50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	3.3	0.0	-	-	-
127.0 34.0	-	-	-	-	-	-	-	0.0	0.0	2.9	0.0	-
127.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	-
127.0 50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	9.7	0.0	-	-	-
130.0 35.0	1.8	0.0	0.0	0.0	0.0	0.0	-	5.5	-	0.0	0.0	-
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.3	0.0	0.0	-	-
130.0 70.0	1.5	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
133.0 30.0	9.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	-	-	-
137.0 35.0	1.8	0.0	2.0	0.0	0.0	0.0	0.0	4.7	-	-	-	-



TABLE 4. (cont.)

*Sphyræna argentea*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	30.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-
115.0	30.0	-	-	-	-	-	-	1.9	0.0	0.0	0.0	0.0
120.0	25.0	-	-	-	-	-	-	2.8	-	0.0	0.0	0.0
120.0	30.0	-	-	-	-	-	-	28.7	-	0.0	0.0	0.0
120.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	0.0
120.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	-	0.0	0.0	0.0
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	-
127.0	34.0	-	-	-	-	-	-	8.2	0.0	0.0	0.0	-
130.0	30.0	-	-	-	-	-	-	4.2	0.0	0.0	0.0	-
133.0	25.0	-	-	-	-	-	-	0.0	13.3	0.0	0.0	-
133.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	0.0	0.0	-
137.0	23.0	-	-	-	-	-	-	0.0	5.1	0.0	0.0	-
140.0	30.0	-	-	-	-	-	-	-	7.7	-	-	-

*Icichthys lockingtoni*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	50.0	-	-	-	-	-	0.0	4.6	-	-	-	-
40.0	60.0	-	-	-	-	-	0.0	20.0	-	-	-	-
40.0	70.0	-	-	-	-	-	-	11.8	-	-	-	-
43.0	60.0	-	-	-	-	-	3.8	0.0	-	-	-	-
47.0	55.0	-	-	-	-	-	3.2	-	-	-	-	-
50.0	60.0	-	-	-	-	-	3.2	0.0	-	-	-	-
50.0	70.0	-	-	-	-	-	2.7	0.0	-	-	-	-
50.0	80.0	-	-	-	-	-	0.0	4.0	-	-	-	-
50.0	90.0	-	-	-	-	-	4.8	-	-	-	-	-
53.0	65.0	-	-	-	-	-	-	17.3	-	-	-	-
60.0	55.0	-	-	-	-	-	-	1.5	-	-	0.0	-
60.0	60.0	0.0	0.0	0.0	0.0	1.9	0.0	2.3	3.3	0.0	5.0	-
60.0	80.0	-	8.7	8.7	3.7	0.0	10.5	0.0	0.0	0.0	2.9	-
60.0	90.0	-	0.0	0.0	3.6	0.0	5.2	0.0	0.0	-	0.0	-
60.0	100.0	-	12.1	12.1	0.0	0.0	0.0	-	0.0	-	0.0	-
60.0	120.0	-	-	-	0.0	3.6	0.0	-	-	-	-	-
61.0	55.0	-	-	0.0	0.0	0.0	0.0	-	-	-	-	-
63.0	55.0	-	-	-	-	-	-	0.0	-	-	1.7	-
63.0	67.0	8.5	29.6	29.6	-	10.2	7.5	-	-	-	-	-
67.0	55.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	-	-	0.0	-
67.0	65.0	0.0	13.7	13.7	0.0	25.9	0.0	0.0	-	-	2.4	-
70.0	55.0	0.0	0.0	0.0	0.0	15.2	1.6	-	-	-	-	-
70.0	60.0	1.8	9.0	9.0	0.0	6.4	0.0	0.0	-	0.0	0.0	-
70.0	70.0	0.0	0.0	0.0	0.0	4.1	1.7	0.0	-	0.0	0.0	-
70.0	80.0	9.3	11.7	11.7	0.0	14.6	13.8	0.0	-	0.0	0.0	-
70.0	90.0	0.0	14.1	14.1	0.0	36.2	0.0	0.0	-	0.0	-	-
70.0	100.0	-	3.6	3.6	0.0	0.0	1.7	-	-	0.0	-	-
73.0	61.0	1.4	64.4	64.4	1.8	0.0	0.0	-	-	-	-	-

TABLE 4. (cont.)

*Icichthys lockingtoni* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0	55.0	0.0	-	3.7	0.0	0.0	0.0	0.0	-	0.0	0.0	-
77.0	65.0	0.0	-	7.0	0.0	0.0	0.0	0.0	-	0.0	6.1	0.0
80.0	55.0	0.0	0.0	9.0	0.0	0.0	0.0	-	0.0	-	0.0	-
80.0	60.0	0.0	0.0	1.7	-	0.0	-	3.0	0.0	-	0.0	0.0
80.0	70.0	0.0	0.0	3.4	-	9.9	0.0	0.0	0.0	-	0.0	-
80.0	80.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
80.0	90.0	0.0	4.8	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	100.0	22.0	8.4	1.6	-	0.0	0.0	-	0.0	-	0.0	-
80.0	110.0	5.7	16.5	3.8	-	0.0	-	-	-	-	-	-
80.0	120.0	0.0	3.9	3.5	-	-	-	-	-	-	-	-
80.0	130.0	0.0	0.0	1.8	-	-	-	-	-	-	-	-
83.0	55.0	0.0	-	3.1	0.8	-	-	-	0.0	-	-	-
83.0	60.0	0.0	-	0.0	0.0	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	0.0	14.9	-	-	-	-	-	-	-
83.0	80.0	0.0	-	1.9	-	0.0	-	-	-	-	-	-
85.0	90.0	-	-	-	-	-	-	-	-	-	-	-
87.0	35.0	-	4.8	-	-	-	-	0.0	-	-	-	-
87.0	60.0	0.0	-	0.0	1.8	-	-	-	-	-	-	-
87.0	70.0	-	-	9.5	0.0	0.0	-	-	-	-	-	-
87.0	90.0	-	-	3.5	0.0	0.0	-	-	-	-	-	-
90.0	30.0	0.0	0.0	47.5	1.9	0.0	0.0	-	0.0	0.0	0.0	0.0
90.0	37.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	45.0	3.5	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
90.0	60.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	70.0	0.0	9.1	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
90.0	80.0	0.0	4.1	2.3	2.1	0.0	0.0	0.0	-	-	-	-
90.0	90.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	-	-	-	-
90.0	120.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-	-
93.0	30.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0	60.0	1.8	0.0	0.0	0.0	6.0	-	0.0	-	-	-	-
93.0	70.0	0.0	8.0	1.8	0.0	4.0	-	0.0	-	-	-	-
93.0	80.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	-	-	-	-
93.0	90.0	4.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
97.0	32.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	40.0	6.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	60.0	0.0	0.0	5.4	0.0	4.6	0.0	0.0	-	-	-	-
100.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
103.0	70.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
105.0	70.0	-	5.5	0.0	0.0	0.0	-	-	-	-	-	-
107.0	40.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	-

TABLE 4. (cont.)

*Icichthys lockingtoni* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	80.0	0.0	0.0	1.6	0.0	0.0	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	2.5	0.0	0.0	0.0	-	-	-	-	-	-
120.0	35.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0

*Peprilus simillimus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
115.0	30.0	-	-	0.0	0.0	-	-	0.0	1.4	0.0	0.0	0.0
117.0	35.0	3.8	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0	40.0	3.8	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	35.0	3.5	0.0	7.5	0.0	0.0	2.9	3.6	-	0.0	0.0	0.0
123.0	40.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
130.0	35.0	0.0	0.0	2.9	0.0	0.0	-	0.0	-	0.0	0.0	-
137.0	35.0	1.7	4.1	0.0	0.0	0.0	0.0	-	-	-	-	-
137.0	50.0	0.0	2.2	0.0	0.0	0.0	-	0.0	-	-	-	-
140.0	35.0	-	7.4	-	-	0.0	-	-	0.0	-	-	-

*Tetragonurus cuvieri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0	50.0	-	-	0.0	-	-	1.9	0.0	-	-	-	-
80.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	-	1.1	-	0.0	-
80.0	100.0	0.0	0.0	-	-	0.0	0.0	-	10.0	-	3.3	-
83.0	60.0	0.0	-	0.0	0.0	-	-	-	2.2	-	-	-
90.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	3.1	1.9
90.0	80.0	1.8	0.0	0.0	0.0	0.0	0.0	2.9	-	-	-	-
100.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	10.9	0.0
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	-	0.0
100.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	-
100.0	90.0	1.8	0.0	0.0	0.0	0.0	0.0	-	15.5	0.0	-	-
100.0	100.0	0.0	0.0	0.0	0.0	-	2.3	-	-	-	-	-
103.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	2.4	0.0	0.0	-
103.0	70.0	1.7	0.0	0.0	0.0	0.0	-	-	-	-	-	-
107.0	70.0	-	0.0	0.0	0.0	0.0	-	-	-	-	-	-
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.8	0.0
110.0	50.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	2.9
110.0	60.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.5	0.0
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	-
120.0	90.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
150.0	70.0	-	3.9	-	-	0.0	0.0	0.0	0.0	-	-	-
153.0	20.0	-	2.1	-	-	0.0	-	-	0.0	-	-	-

TABLE 4. (cont.)

Chiasmodontidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 80.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	-	-	-	-
93.0 90.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	-	-	-	-
100.0 100.0	0.0	-	0.0	0.0	1.8	-	2.3	-	-	-	-	-
100.0 110.0	0.0	-	-	0.0	1.9	-	-	-	-	-	-	-
100.0 120.0	0.0	-	-	1.5	0.0	-	-	-	-	-	-	-
105.0 90.0	-	1.7	-	-	-	-	-	-	-	-	-	-
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-	2.8	0.0	-
120.0 70.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
120.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	-
127.0 50.0	0.0	0.0	2.6	0.0	0.0	-	0.0	0.0	2.7	-	-	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.9	-	-	0.0	0.0	0.0	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	1.7	-	0.0	0.0	0.0	0.0	-
133.0 50.0	1.4	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
133.0 60.0	1.6	0.0	0.0	0.0	0.0	1.9	-	-	-	-	-	-
137.0 50.0	0.0	0.0	0.0	0.0	1.9	0.0	-	0.0	-	-	-	-
137.0 60.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-	-
140.0 80.0	-	-	0.0	-	-	1.9	-	-	-	-	-	-
153.0 20.0	-	-	6.2	-	-	0.0	-	-	0.0	-	-	-
153.0 30.0	-	-	2.0	-	-	0.0	-	-	-	-	-	-

Uranoscopidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	-

Pleuronectiformes

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 90.0	-	-	-	0.0	3.6	0.0	0.0	0.0	0.0	-	0.0	-
80.0 51.0	-	-	-	-	-	-	1.7	-	0.0	-	0.0	0.0
115.0 27.0	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	3.9
120.0 25.0	-	-	-	-	-	-	-	1.9	-	0.0	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	1.7
127.0 34.0	-	-	-	-	-	-	-	1.6	0.0	-	-	-
137.0 50.0	0.0	3.4	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
140.0 30.0	-	-	-	-	-	-	-	-	3.8	-	-	-
147.0 25.0	-	-	0.0	-	-	2.1	-	-	0.0	-	-	-

Bothus spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	3.4	0.0	-



TABLE 4. (cont.)

*Bothus spp. (cont.)*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0	23.0	-	-	-	-	-	-	0.0	0.0	2.4	0.0	-
150.0	19.0	-	-	-	-	-	-	-	2.6	-	-	-

*Citharichthys spp.*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	-	-	0.0	-	-	1.9	-
60.0	60.0	0.0	-	8.2	0.0	0.0	0.0	4.7	16.3	5.0	27.7	-
60.0	70.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	-
61.0	55.0	5.6	-	0.0	0.0	-	-	-	-	-	-	-
63.0	52.0	-	-	-	-	-	-	0.0	-	-	1.3	-
63.0	55.0	-	-	-	-	-	-	3.1	-	-	11.3	-
63.0	57.0	5.1	-	0.0	0.0	0.0	0.0	-	-	-	-	-
67.0	50.0	-	-	-	-	-	-	4.6	-	-	4.9	-
67.0	55.0	0.0	-	0.0	0.0	0.0	0.0	2.3	-	-	9.7	-
67.0	65.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	-	8.1	-
70.0	51.0	-	-	-	-	-	-	0.0	-	-	4.8	-
70.0	60.0	0.0	-	0.0	0.0	0.0	0.0	6.0	-	7.2	0.0	-
70.0	70.0	0.0	-	0.0	0.0	0.0	0.0	1.6	-	0.0	7.6	-
70.0	80.0	2.3	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0	90.0	5.5	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-
73.0	50.0	-	-	-	-	-	-	0.0	-	-	1.3	-
73.0	51.0	1.9	-	0.0	0.0	0.0	0.0	-	-	-	-	-
73.0	60.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	4.5	-
73.0	61.0	1.4	-	0.0	0.0	0.0	0.0	-	-	-	-	-
77.0	50.0	-	-	0.0	-	-	-	-	-	-	-	-
77.0	55.0	3.7	-	3.7	0.0	0.0	0.0	3.2	-	48.4	9.3	-
77.0	65.0	3.4	-	0.0	0.0	0.0	0.0	15.4	-	14.2	9.2	-
80.0	51.0	-	-	-	-	-	3.5	5.7	-	11.0	6.1	10.2
80.0	55.0	-	0.0	1.8	0.0	0.0	23.0	-	3.9	-	11.6	3.0
80.0	60.0	0.0	0.0	0.0	0.0	0.0	-	-	7.8	-	0.0	-
80.0	70.0	6.5	0.0	1.7	-	0.0	-	0.0	0.0	-	0.0	0.0
80.0	80.0	1.5	0.0	0.0	-	0.0	0.0	0.0	0.0	-	6.3	7.7
80.0	90.0	1.7	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	-
83.0	43.0	-	-	-	-	-	-	-	0.0	-	116.2	4.5
83.0	60.0	6.8	-	0.0	0.0	-	-	-	6.5	-	-	-
83.0	70.0	1.7	-	0.0	0.0	-	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	13.0	7.5	-	21.4	6.5
85.0	40.0	-	0.0	-	-	-	3.2	12.6	19.5	-	17.2	6.2
85.0	50.0	-	1.7	-	-	-	-	0.0	0.0	-	0.0	0.0
85.0	70.0	-	0.0	-	-	-	-	32.2	-	-	-	-
85.0	80.0	-	0.0	-	-	-	-	2.3	-	-	-	-
87.0	35.0	3.3	-	0.0	1.8	-	-	7.5	-	-	-	-
87.0	40.0	5.7	-	0.0	0.0	-	-	-	-	-	-	-
87.0	70.0	5.7	-	0.0	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Citharichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	28.0	-	-	8.8	-	-	-	0.0	2.7	87.6	46.1	-
90.0	30.0	0.0	0.0	0.0	0.0	13.2	3.7	6.8	2.4	28.4	25.4	-
90.0	37.0	0.0	3.2	0.0	0.0	0.0	8.3	0.0	0.0	22.7	5.9	2.0
90.0	45.0	3.5	0.0	0.0	0.0	0.0	-	0.0	2.5	0.0	6.1	6.4
90.0	53.0	0.0	1.8	0.0	2.0	0.0	0.0	0.0	7.2	2.3	0.0	0.0
90.0	60.0	1.8	0.0	0.0	0.0	0.0	0.0	2.9	5.5	0.0	0.0	7.8
90.0	70.0	0.0	3.4	0.0	0.0	0.0	0.0	2.7	0.0	-	0.0	-
90.0	80.0	1.8	0.0	0.0	2.1	0.0	0.0	0.0	-	-	-	-
90.0	100.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-
93.0	27.0	-	-	3.1	5.2	-	-	0.0	29.5	11.3	-	2.9
93.0	30.0	0.0	0.0	2.8	0.0	-	0.0	0.0	0.0	6.5	-	24.4
93.0	40.0	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0	50.0	0.0	1.8	0.0	0.0	0.0	2.1	2.6	0.0	0.0	-	0.0
93.0	60.0	0.0	0.0	0.0	0.0	0.0	-	2.6	-	-	-	-
93.0	70.0	0.0	2.0	0.0	0.0	0.0	-	0.0	-	-	-	-
97.0	30.0	-	-	2.8	-	-	-	0.0	40.3	24.4	-	33.6
97.0	32.0	3.4	0.0	17.0	0.0	1.5	0.0	0.0	5.5	6.6	-	-
97.0	40.0	0.0	0.0	3.2	0.0	0.0	0.0	6.4	2.1	0.0	-	0.0
97.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.7	0.0	-	0.0
97.0	60.0	1.8	0.0	0.0	0.0	2.3	0.0	2.6	-	-	-	-
97.0	70.0	1.5	0.0	0.0	0.0	0.0	0.0	2.6	-	-	-	-
100.0	29.0	-	-	6.8	-	-	-	0.0	18.7	0.0	-	5.0
100.0	30.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	5.8	-	4.4
100.0	40.0	0.0	11.1	0.0	10.9	1.9	1.9	0.0	4.5	53.0	-	-
100.0	50.0	0.0	3.2	0.0	4.2	0.0	0.0	0.0	0.0	0.0	2.4	0.0
100.0	60.0	0.0	3.3	0.0	6.8	0.0	0.0	5.5	0.0	0.0	0.0	0.0
100.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	0.0
103.0	30.0	-	-	2.1	-	-	-	1.0	-	1.6	1.4	-
103.0	35.0	-	4.9	7.0	2.0	12.9	-	-	7.1	14.2	2.1	-
103.0	40.0	-	0.0	9.4	0.0	30.3	-	-	0.0	12.9	0.0	-
103.0	50.0	-	0.0	6.8	2.0	0.0	-	-	-	-	-	-
103.0	70.0	-	0.0	-	-	-	-	10.4	-	-	-	-
105.0	32.0	-	-	-	-	-	-	27.9	-	-	-	-
105.0	35.0	1.6	-	-	-	-	-	-	-	-	-	-
105.0	70.0	2.0	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	347.8	61.4	0.0	-
107.0	35.0	-	2.7	0.0	2.0	0.0	-	-	0.0	9.3	0.0	-
107.0	40.0	-	2.5	3.6	0.0	0.0	-	-	0.0	10.5	0.0	-
107.0	50.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-	-
107.0	60.0	2.0	0.0	2.2	0.0	0.0	-	-	-	-	-	-
107.0	70.0	0.0	5.1	0.0	0.0	0.0	-	-	-	-	-	-
107.0	80.0	0.0	0.0	0.0	4.6	0.0	-	-	-	-	-	-
110.0	33.0	-	-	-	-	-	-	-	29.1	1.5	11.4	1.6
110.0	35.0	0.9	0.0	0.0	0.0	0.0	-	0.0	0.0	28.6	2.6	2.6
110.0	40.0	0.0	0.0	0.0	3.9	1.6	-	5.3	0.0	6.3	0.0	0.0
110.0	50.0	0.0	0.0	0.0	3.9	0.0	-	0.0	7.4	0.0	2.6	0.0

TABLE 4. (cont.)

*Citharichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	60.0	0.0	0.0	0.0	0.0	58.9	-	0.0	18.6	2.8	0.0	0.0
110.0	70.0	0.0	0.0	12.7	0.0	97.2	-	-	-	-	-	-
110.0	80.0	0.0	0.0	0.0	0.0	20.4	9.3	-	-	-	-	-
110.0	90.0	0.0	0.0	0.0	0.0	6.1	0.0	-	-	-	-	-
113.0	35.0	0.0	5.5	0.0	0.0	6.6	-	-	-	-	-	-
113.0	60.0	0.0	0.0	2.1	1.9	104.9	-	-	-	-	-	-
113.0	70.0	0.0	10.2	2.4	11.2	18.4	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	8.8	23.3	6.3	0.0	27.0
115.0	30.0	-	-	-	-	-	-	124.1	179.3	1.4	4.5	8.8
115.0	35.0	-	-	-	-	-	-	9.5	384.8	0.0	0.0	0.0
115.0	40.0	-	-	-	-	-	-	3.0	11.3	2.9	0.0	0.0
115.0	60.0	-	-	-	-	-	-	8.7	-	-	-	-
117.0	35.0	18.7	0.0	26.4	0.0	0.0	-	-	-	-	-	-
117.0	40.0	77.0	69.4	76.1	3.4	0.0	-	-	-	-	-	-
117.0	50.0	0.0	10.4	3.7	3.9	0.0	-	-	-	-	-	-
117.0	60.0	0.0	0.0	28.3	6.3	0.0	-	-	-	-	-	-
117.0	70.0	3.3	15.8	0.0	0.0	0.0	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	12.2	-	0.0	0.0	0.0
120.0	30.0	-	-	-	-	-	-	326.8	-	4.9	0.0	0.0
120.0	35.0	283.1	50.2	30.5	206.7	45.1	130.3	36.8	-	0.0	3.2	0.0
120.0	45.0	30.2	255.4	59.1	26.9	0.0	0.0	6.1	-	0.0	0.0	3.2
120.0	50.0	0.0	20.8	47.8	15.0	0.0	6.7	0.0	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	0.0	0.0	0.0	51.5	2.8	-	22.1	0.0	-
120.0	70.0	0.0	0.0	37.4	1.9	0.0	9.9	11.2	-	0.0	0.0	-
120.0	80.0	4.0	0.0	0.0	0.0	0.0	1.7	7.5	-	0.0	5.5	-
120.0	90.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	6.4	0.0	0.0	-
123.0	40.0	8.7	10.1	154.0	14.1	-	37.2	0.0	0.0	3.0	0.0	4.0
123.0	50.0	1.5	2.7	26.9	11.7	-	0.0	0.0	0.0	-	-	-
123.0	60.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0	-	-	-
127.0	34.0	-	-	-	-	-	-	8.2	0.0	4.3	8.4	-
127.0	40.0	1.7	18.4	84.8	55.8	15.4	5.8	3.1	0.0	2.7	0.0	-
127.0	50.0	4.9	0.0	0.0	3.5	-	35.2	0.0	0.0	-	-	-
127.0	60.0	2.2	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
130.0	30.0	-	-	-	-	-	-	4.2	21.7	8.0	0.0	-
130.0	35.0	5.5	0.0	74.4	95.7	14.0	-	0.0	-	47.0	2.6	-
130.0	40.0	0.0	0.0	3.5	11.3	2.7	-	0.0	3.3	9.4	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	6.7	-	7.0	0.0	0.0	0.0	-
130.0	60.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	5.5	0.0	-
130.0	70.0	0.0	0.0	1.7	0.0	0.0	-	0.0	0.0	0.0	0.0	-
133.0	25.0	-	-	-	-	-	-	0.0	1.5	0.0	0.0	-
133.0	30.0	1.8	31.1	6.5	9.5	2.1	-	0.0	0.0	0.0	2.8	-
133.0	40.0	0.0	0.0	0.0	8.6	1.8	-	0.0	-	-	-	-
133.0	50.0	0.0	0.0	0.0	41.8	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	0.0	0.0	0.0	7.5	-	-	-	-	-	-
137.0	23.0	-	-	-	-	-	-	0.0	5.1	0.0	0.0	-
137.0	35.0	3.7	8.3	8.9	0.6	11.9	20.5	-	-	-	-	-

TABLE 4. (cont.)

*Citharichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 40.0	0.0	6.5	1.7	0.0	9.3	0.0	13.0	0.0	-	-	-	-
137.0 50.0	0.0	0.0	24.2	0.0	0.0	0.0	-	0.0	-	-	-	-
137.0 60.0	0.0	0.0	5.8	0.0	0.0	0.0	-	-	-	-	-	-
140.0 35.0	-	-	29.6	-	-	0.0	-	-	0.0	-	-	-
140.0 40.0	-	-	0.0	-	-	1.9	-	-	0.0	-	-	-
143.0 30.0	-	-	3.3	-	-	5.7	-	-	0.0	-	-	-
143.0 35.0	-	-	1.7	-	-	3.8	-	-	0.0	-	-	-
147.0 20.0	-	-	4.7	-	-	7.4	-	-	0.0	-	-	-
147.0 50.0	-	-	-	-	-	0.0	-	-	-	-	-	-
153.0 40.0	-	-	1.6	-	-	0.0	-	-	-	-	-	-
157.0 10.0	-	-	1.5	-	-	0.0	-	-	0.0	-	-	-
157.0 30.0	-	-	1.9	-	-	0.0	-	-	-	-	-	-

*Hippoglossina* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 30.0	-	-	-	-	-	-	-	0.0	-	1.6	0.0	0.0

*Hippoglossina stomata*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
115.0 27.0	-	-	-	-	-	-	-	0.0	3.1	0.0	2.7	0.0
115.0 30.0	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	1.5
120.0 30.0	-	-	-	-	-	-	-	0.9	-	0.0	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	-	0.0	0.0	1.7
127.0 34.0	-	-	-	-	-	-	-	0.0	0.0	0.0	1.4	-
130.0 30.0	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	5.9	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	3.3	0.0	0.0	-
133.0 40.0	0.0	0.0	0.0	0.0	1.9	0.0	-	0.0	2.6	0.0	-	-
137.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	-	-	-	-
140.0 35.0	-	-	1.9	-	-	0.0	-	-	0.0	-	-	-

*Paralichthys californicus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
85.0 40.0	-	-	0.0	-	-	-	0.0	3.2	0.0	-	0.0	0.0
97.0 30.0	-	-	-	-	-	-	-	0.0	0.0	0.5	-	0.0
103.0 30.0	-	-	-	-	-	-	-	0.0	-	0.0	2.7	-
115.0 30.0	-	-	-	-	-	-	-	18.8	1.4	0.0	0.0	0.0
115.0 35.0	-	-	-	-	-	-	-	0.0	0.0	2.9	0.0	0.0
120.0 25.0	-	-	-	-	-	-	-	3.9	-	0.0	0.0	0.0
120.0 30.0	-	-	-	-	-	-	-	10.2	-	0.0	0.0	0.0



TABLE 4. (cont.)

*Paralichthys californicus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 35.0	3.7	0.0	0.0	0.0	0.0	0.0	2.9	0.0	-	0.0	0.0	1.7
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	0.0
123.0 40.0	0.0	0.0	0.0	0.0	1.0	-	0.0	0.0	0.0	-	0.0	0.0
130.0 30.0	-	-	-	-	-	-	-	7.0	0.0	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	14.5	-	0.0	0.0	0.0	0.0	-
147.0 25.0	-	-	2.0	-	-	0.0	-	-	0.0	-	-	-

*Syacium ovale*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 23.0	-	-	-	-	-	-	-	6.7	0.0	0.0	0.0	-
140.0 35.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-
147.0 25.0	-	-	0.0	-	-	0.0	-	-	1.5	-	-	-
157.0 10.0	-	-	0.0	-	-	0.0	-	-	1.3	-	-	-
157.0 20.0	-	-	0.0	-	-	0.0	-	-	2.6	-	-	-

*Xystreureys liolepis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
115.0 30.0	-	-	-	-	-	-	-	3.8	0.0	0.0	0.0	0.0
120.0 25.0	-	-	-	-	-	-	-	0.0	-	2.2	0.0	0.0
127.0 34.0	-	-	-	-	-	-	-	0.0	0.0	0.0	4.2	-

*Glyptocephalus zachirus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 38.0	-	-	-	-	-	-	-	1.5	-	-	-	-
43.0 60.0	-	-	-	-	-	-	0.0	2.4	-	-	-	-
47.0 55.0	-	-	-	-	-	-	9.5	-	-	-	-	-
47.0 60.0	-	-	-	-	-	-	2.8	0.0	-	-	-	-
50.0 60.0	-	-	-	-	-	-	4.8	0.0	-	-	-	-
60.0 90.0	-	-	-	7.2	0.0	0.0	0.0	0.0	0.0	-	0.0	-
63.0 67.0	0.0	-	-	7.4	-	0.0	0.0	-	-	-	-	-
70.0 60.0	3.5	-	-	0.0	3.4	0.0	0.0	0.0	-	0.0	0.0	-
70.0 90.0	0.0	-	-	3.5	0.0	0.0	0.0	0.0	-	0.0	-	-
77.0 55.0	0.0	-	-	3.7	0.0	0.0	0.0	0.0	-	0.0	0.0	-
77.0 65.0	0.0	-	-	0.0	0.0	4.0	0.0	0.0	-	0.0	0.0	0.0

*Lyopsetta exilis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
47.0 55.0	-	-	-	-	-	-	3.2	-	-	-	-	-

TABLE 4. (cont.)

*Lyopsetta exilis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	0.0	-	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
63.0	57.0	0.0	-	7.8	3.2	0.0	0.0	-	-	-	-	-
67.0	65.0	0.0	-	0.0	0.0	0.0	1.8	0.0	-	-	0.0	-
70.0	55.0	0.0	-	4.7	0.0	0.0	0.0	-	-	-	-	-
70.0	60.0	0.0	-	0.0	3.4	0.0	0.0	0.0	-	0.0	0.0	-
73.0	51.0	7.5	-	4.7	0.0	5.5	0.0	-	-	-	-	-
73.0	61.0	0.0	-	0.0	3.5	0.0	0.0	-	-	-	-	-
77.0	55.0	-	-	3.7	0.0	0.0	1.9	0.0	-	0.0	0.0	-
80.0	55.0	0.0	0.0	3.6	0.0	1.7	0.0	-	0.0	-	0.0	-
80.0	60.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
83.0	55.0	0.0	-	3.1	1.6	-	-	-	0.0	-	-	-
83.0	70.0	0.0	-	0.0	2.1	-	-	-	-	-	-	-
85.0	40.0	-	0.0	-	-	-	1.6	0.0	0.0	-	0.0	0.0
85.0	50.0	-	3.3	-	-	-	-	0.0	0.0	-	0.0	0.0
87.0	35.0	0.0	-	0.0	1.8	-	-	0.0	-	-	-	-
90.0	28.0	-	-	-	-	-	-	0.0	0.0	1.5	0.0	-
90.0	30.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	37.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	45.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-
93.0	30.0	1.8	0.0	1.5	2.1	-	0.0	0.0	0.0	0.0	-	-
93.0	40.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	-	-
93.0	50.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	-	-
97.0	30.0	-	-	-	-	-	-	0.0	0.0	0.5	-	-
97.0	32.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	-
97.0	40.0	0.0	0.0	3.8	0.0	1.4	0.0	0.0	0.0	0.0	-	0.0
97.0	50.0	0.0	0.0	1.6	2.2	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0	30.0	0.0	8.1	0.0	0.0	4.2	-	0.0	0.0	0.0	-	-
100.0	40.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
103.0	40.0	0.0	0.0	0.0	0.0	2.3	-	-	0.0	0.0	-	-
110.0	80.0	0.0	0.0	0.0	0.0	1.7	0.0	-	-	-	-	-
117.0	40.0	0.0	0.0	1.6	0.0	0.0	-	-	-	-	-	-
120.0	30.0	-	-	-	-	-	-	2.8	-	-	0.0	0.0
120.0	35.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	-	0.0	0.0	0.0
120.0	45.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	-	0.0	0.0	0.0
120.0	50.0	0.0	0.0	0.0	1.9	0.0	1.7	0.0	-	0.0	0.0	0.0
123.0	40.0	0.0	0.0	0.0	1.0	-	0.0	0.0	0.0	-	0.0	0.0

*Microstomus pacificus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
43.0	60.0	-	-	-	-	-	3.8	0.0	-	-	-	-
50.0	50.0	-	-	-	-	-	-	2.6	-	-	-	-
50.0	90.0	-	-	-	-	-	4.8	-	-	-	-	-
63.0	67.0	-	-	7.4	-	0.0	0.0	-	-	-	-	-
67.0	65.0	0.0	-	0.0	6.8	3.7	0.0	0.0	-	-	0.0	-

TABLE 4. (cont.)

*Microstomus pacificus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 60.0	0.0	-	-	0.0	3.4	0.0	0.0	0.0	-	0.0	0.0	-
70.0 70.0	0.0	-	-	3.6	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0 80.0	0.0	-	-	3.9	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0 90.0	0.0	-	-	0.0	0.0	0.0	6.0	0.0	-	0.0	-	-
70.0 100.0	-	-	-	14.6	0.0	0.0	0.0	-	-	-	-	-
77.0 65.0	0.0	-	-	0.0	0.0	4.0	0.0	0.0	-	0.0	0.0	0.0
80.0 60.0	0.0	0.0	0.0	0.0	-	3.0	-	0.0	0.0	-	0.0	0.0
80.0 100.0	-	0.0	0.0	1.6	-	0.0	0.0	-	0.0	-	0.0	-
83.0 60.0	0.0	3.3	-	0.0	0.0	-	-	-	0.0	-	-	-
83.0 80.0	0.0	-	-	3.8	-	0.0	-	-	-	-	-	-
90.0 53.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 60.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 70.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	-	0.0	-
90.0 80.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	-	-	-	-
90.0 100.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	-	-	-	-
93.0 80.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	-	-	-	-
97.0 32.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	-	-
97.0 60.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	-	-	-	-
100.0 40.0	0.0	0.0	0.0	3.5	1.8	0.0	0.0	0.0	0.0	0.0	-	-
103.0 40.0	0.0	-	0.0	0.0	0.0	2.3	-	-	0.0	0.0	0.0	-
110.0 40.0	0.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

*Pleuronichthys* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0 50.0	-	-	-	-	-	-	-	0.0	-	2.2	0.0	-
85.0 40.0	-	-	0.0	-	-	-	1.6	0.0	0.0	-	0.0	0.0
90.0 30.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
113.0 70.0	0.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-
115.0 27.0	-	-	-	-	-	-	-	0.0	0.0	1.6	0.0	0.0
115.0 30.0	-	-	-	-	-	-	-	3.8	6.9	0.0	0.0	0.0
115.0 35.0	-	-	-	-	-	-	-	0.0	5.4	0.0	0.0	0.0
120.0 30.0	-	-	-	-	-	-	-	8.3	-	0.0	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	1.7	2.9	0.0	-	0.0	0.0	0.0
130.0 80.0	0.0	0.0	0.0	0.0	1.8	0.0	-	-	-	-	-	-
133.0 50.0	0.0	0.0	0.0	0.0	1.0	0.0	-	0.0	-	-	-	-
143.0 30.0	-	-	0.0	-	-	1.9	-	-	0.0	-	-	-

*Pleuronichthys coenosus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0 60.0	0.0	0.0	-	3.0	0.0	-	-	-	0.0	-	-	-
85.0 38.0	-	-	-	-	-	-	-	0.0	0.6	-	0.0	0.0
85.0 50.0	-	-	0.0	-	-	-	-	2.8	0.0	-	0.0	0.0

TABLE 4. (cont.)

*Pleuronichthys coenosus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0 40.0	0.0	0.0	-	0.0	0.9	-	-	-	-	-	-	-
90.0 45.0	2.0	1.7	0.0	2.5	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.0 40.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0 70.0	0.0	0.0	0.0	0.0	0.0	1.0	-	0.0	-	-	-	-
97.0 30.0	-	-	-	-	-	-	-	0.0	0.0	1.5	-	0.0
97.0 32.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	-	-
100.0 40.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	1.2	-	-
120.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	-	0.0	0.0	0.0
130.0 50.0	0.0	0.0	0.0	0.0	0.0	0.9	-	0.0	0.0	0.0	0.0	-
130.0 70.0	0.0	0.0	0.0	3.4	0.0	0.0	-	-	0.0	0.0	-	-

*Pleuronichthys decurrens*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0 60.0	1.7	0.0	-	0.0	0.0	-	-	-	0.0	-	-	-
90.0 45.0	2.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0 53.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 70.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-

*Pleuronichthys ritteri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 30.0	-	-	-	-	-	-	-	0.0	-	0.0	1.7	0.0

*Pleuronichthys verticalis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-
110.0 33.0	-	-	-	-	-	-	-	-	1.7	0.0	0.0	0.0
110.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	2.9	0.0	0.0

*Symphurus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-	-
115.0 27.0	-	-	-	-	-	-	-	0.0	0.0	0.0	1.3	0.0
115.0 30.0	-	-	-	-	-	-	-	5.6	0.0	0.0	0.0	0.0
120.0 25.0	-	-	-	-	-	-	-	4.9	-	0.0	1.5	0.0
120.0 30.0	-	-	-	-	-	-	-	44.3	-	0.0	0.0	0.0
120.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117.9	-	0.0	0.0	1.7
120.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	-	0.0	0.0	0.0



TABLE 4. (cont.)

*Symphurus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	8.5	2.8	3.1
120.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.2	-
123.0 37.0	-	-	-	-	-	-	-	0.0	2.3	-	26.6	0.0
123.0 40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	1.6	-	22.8	1.3
127.0 34.0	-	-	-	-	-	-	-	57.4	64.0	2.9	21.0	-
127.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	7.1	0.0	0.0	-
130.0 30.0	-	-	-	-	-	-	-	2.8	0.0	28.1	1.5	-
130.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	3.4	7.8	-
130.0 40.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	53.4	0.0	-
130.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.5	0.0	0.0	0.0	-
133.0 25.0	-	-	-	-	-	-	-	19.6	11.8	0.0	0.0	-
133.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.6	0.0	2.8	-
137.0 23.0	-	-	-	-	-	-	-	3.3	35.8	2.4	0.0	-
140.0 30.0	-	-	-	-	-	-	-	-	15.4	-	-	-
143.0 30.0	-	-	0.0	-	-	0.0	-	-	6.9	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	9.9	-	-	-
153.0 40.0	-	-	0.0	-	-	4.1	-	-	-	-	-	-

## Balistidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	-	0.0	0.0	-

## Tetraodontidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 30.0	-	-	-	-	-	-	-	2.1	0.0	0.0	0.0	-
157.0 40.0	-	-	0.0	-	-	3.9	-	-	-	-	-	-

## Disintegrated fish larva

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
40.0 60.0	-	-	-	-	-	-	9.2	5.0	-	-	-	-
50.0 100.0	-	-	-	-	-	-	3.2	-	-	-	-	-
60.0 60.0	1.8	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 80.0	-	-	-	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	-
60.0 110.0	-	-	-	1.9	0.0	0.0	0.0	-	-	-	-	-
61.0 55.0	0.0	-	-	1.5	0.0	0.0	0.0	-	-	-	-	-
63.0 52.0	-	-	-	-	-	-	-	1.9	-	-	0.0	-
63.0 57.0	5.1	-	-	0.0	0.0	0.0	0.0	-	-	-	-	-
63.0 67.0	4.3	-	-	0.0	-	0.0	0.0	-	-	-	-	-
67.0 55.0	3.8	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	-
67.0 65.0	1.5	-	-	0.0	0.0	11.1	0.0	0.0	-	-	0.0	-

TABLE 4. (cont.)

## Disintegrated fish larva (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	70.0	2.8	-	10.9	0.0	0.0	0.0	0.0	-	0.0	0.0	-
70.0	80.0	0.0	-	0.0	0.0	7.3	0.0	0.0	-	0.0	0.0	-
70.0	90.0	0.0	-	0.0	0.0	10.9	0.0	0.0	-	0.0	-	-
70.0	100.0	-	-	0.0	0.0	3.9	0.0	-	-	-	-	-
70.0	110.0	-	-	0.0	0.0	0.0	1.6	-	-	-	-	-
70.0	120.0	-	-	-	-	5.6	1.6	-	-	-	-	-
73.0	51.0	0.0	-	0.0	0.0	5.5	0.0	-	-	-	-	-
77.0	55.0	0.0	-	0.0	0.0	0.0	0.0	1.2	-	0.0	0.0	-
77.0	65.0	3.4	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	3.4
80.0	51.0	-	-	-	-	-	0.0	-	0.0	-	0.0	1.0
80.0	55.0	0.0	0.0	0.0	0.0	1.7	0.0	-	0.0	-	0.0	-
80.0	60.0	1.6	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
80.0	70.0	0.0	0.0	0.0	-	0.0	1.9	0.0	0.0	-	0.0	-
80.0	90.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-
80.0	100.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	120.0	-	2.0	0.0	-	-	-	-	-	-	-	-
83.0	70.0	0.0	-	1.7	0.0	-	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	0.0	1.8	-	0.0	0.0
85.0	40.0	-	0.0	-	-	-	0.0	0.0	3.4	-	0.0	0.0
85.0	70.0	-	2.0	-	-	-	-	5.4	-	-	-	-
85.0	80.0	-	5.0	-	-	-	-	0.0	-	-	-	-
87.0	40.0	30.6	-	0.0	0.0	-	-	-	-	-	-	-
87.0	50.0	-	-	0.0	1.4	0.0	-	-	-	-	-	-
87.0	60.0	0.0	-	347.7	0.0	0.0	-	-	-	-	-	-
87.0	70.0	0.0	-	0.0	1.7	0.0	-	-	-	-	-	-
87.0	80.0	0.0	-	0.0	3.9	0.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	-	-	-	10.9	3.0	5.8	-
90.0	30.0	0.0	0.0	1.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
90.0	37.0	0.0	11.1	2.4	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0	45.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.5	0.0	0.0	0.0
90.0	53.0	7.3	0.0	2.5	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
90.0	60.0	0.0	3.6	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	3.9
90.0	70.0	0.0	9.1	0.0	0.0	0.0	7.1	0.0	0.0	-	0.0	-
90.0	80.0	0.0	2.0	7.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0	100.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
90.0	110.0	0.0	3.3	4.5	0.0	0.0	0.0	-	-	-	-	-
90.0	120.0	0.0	0.0	1.6	0.0	-	-	-	-	-	-	-
93.0	30.0	0.0	0.0	0.0	0.0	-	1.8	2.5	0.0	0.0	-	0.0
93.0	40.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	2.4
93.0	50.0	0.0	0.0	1.4	0.0	16.9	0.0	7.9	0.0	0.0	-	0.0
93.0	70.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-
93.0	80.0	0.0	0.0	226.8	0.0	2.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0	30.0	0.0	1.9	0.0	0.0	0.0	0.0	1.0	0.0	0.5	-	0.0
97.0	32.0	0.0	0.0	0.0	0.0	3.0	0.0	4.4	0.0	0.0	-	-
97.0	40.0	1.8	0.0	0.0	0.0	1.4	0.0	3.2	0.0	0.0	-	3.0

TABLE 4. (cont.)

## Disintegrated fish larva (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 50.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	-	0.0
97.0 60.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 70.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	-	-	-	-
97.0 80.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.8	-	-	-	-
97.0 90.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	-	-	-	-	-
100.0 30.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	1.2	-	0.0
100.0 40.0	1.9	1.9	1.6	0.0	0.0	3.8	0.0	0.0	0.0	0.0	-	-
100.0 50.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 60.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0 70.0	0.0	1.8	0.0	15.2	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0
100.0 80.0	0.0	3.7	3.4	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	-
100.0 90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	2.6	0.0	-	-
100.0 100.0	0.0	-	1.7	0.0	5.4	-	0.0	-	-	-	-	-
103.0 35.0	-	-	0.0	0.0	2.0	0.0	-	-	0.0	0.0	2.1	-
103.0 40.0	0.0	-	0.0	0.0	1.9	2.3	-	-	0.0	0.0	0.0	-
103.0 60.0	0.0	-	0.0	0.0	0.0	1.7	-	-	-	-	-	-
105.0 35.0	0.0	0.0	0.0	-	-	-	-	2.5	-	-	-	-
105.0 40.0	-	1.8	-	-	-	-	-	0.0	-	-	-	-
105.0 90.0	-	7.0	-	-	-	-	-	-	-	-	-	-
107.0 32.0	-	-	-	-	-	-	-	-	8.3	4.5	0.0	-
107.0 35.0	-	-	-	0.0	0.0	0.0	-	-	0.0	1.3	0.0	-
107.0 40.0	0.0	-	0.0	0.0	0.0	1.9	-	-	0.0	0.0	0.0	-
107.0 70.0	1.7	-	0.0	0.0	1.7	0.0	-	-	-	0.0	-	-
110.0 33.0	-	-	-	-	-	-	-	-	0.0	0.0	0.0	3.3
110.0 35.0	0.8	0.0	0.0	2.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 40.0	0.0	0.0	0.0	0.0	2.6	0.0	-	2.6	0.0	2.9	0.0	0.0
110.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0 60.0	0.0	1.7	0.0	3.6	0.0	0.0	-	0.0	0.0	0.0	2.6	0.0
110.0 80.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.0 90.0	0.0	0.0	0.0	21.6	0.0	0.0	0.0	-	-	-	-	-
110.0 100.0	1.8	0.0	0.0	4.3	0.0	0.0	0.0	-	-	-	-	-
110.0 110.0	0.0	-	0.0	4.9	0.0	0.0	-	-	-	-	-	-
113.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
113.0 40.0	5.3	0.0	-	0.0	0.0	0.0	-	-	-	-	-	-
115.0 30.0	-	-	-	-	-	-	-	0.0	2.8	1.4	0.0	4.4
115.0 35.0	-	-	-	-	-	-	-	6.3	32.5	8.6	0.0	2.9
115.0 40.0	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	5.1
117.0 40.0	3.2	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0 50.0	23.6	9.9	0.0	0.0	0.0	0.0	-	-	-	-	-	-
117.0 60.0	0.0	1.9	7.9	4.4	0.0	4.7	-	-	-	-	-	-
117.0 70.0	0.0	0.0	2.6	0.0	0.0	2.1	-	-	-	-	-	-
120.0 25.0	-	-	-	-	-	-	-	6.1	-	0.0	24.5	0.0
120.0 30.0	-	-	-	-	-	-	-	102.5	-	0.0	3.4	0.0
120.0 35.0	3.7	3.5	1.5	0.0	0.0	1.7	1.0	5.3	-	0.0	0.0	0.0
120.0 45.0	2.2	0.0	0.0	0.0	0.0	1.9	0.0	0.0	-	0.0	0.0	0.0
120.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.8	0.0

TABLE 4. (cont.)

## Disintegrated fish larva (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	-	0.0	0.0	-
120.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	-	0.0	0.0	-
120.0	80.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	-
120.0	100.0	0.0	0.0	0.0	0.0	2.0	-	-	-	-	-	-
120.0	110.0	0.0	0.0	0.0	0.0	1.8	-	-	-	-	-	-
123.0	37.0	-	-	-	-	-	-	0.0	1.9	-	7.4	0.0
123.0	40.0	0.0	0.0	0.0	0.0	-	3.9	0.0	3.2	-	15.2	0.0
123.0	50.0	0.0	0.0	0.0	7.3	-	0.0	0.0	0.0	-	-	-
123.0	60.0	1.8	5.2	0.0	0.0	-	0.0	0.0	-	-	-	-
127.0	34.0	-	-	-	-	-	-	1.6	0.0	0.0	0.0	-
127.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
127.0	60.0	0.0	2.6	0.0	0.0	-	0.0	0.0	-	-	-	-
130.0	30.0	-	-	-	-	-	-	0.0	2.0	0.0	0.0	-
130.0	35.0	0.0	0.0	0.0	1.8	0.0	-	0.0	-	3.4	0.0	-
130.0	40.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-
130.0	50.0	0.0	0.0	1.9	0.0	0.0	-	0.0	3.2	0.0	2.6	-
130.0	60.0	0.0	0.0	7.5	0.0	0.0	-	5.0	0.0	0.0	0.0	-
130.0	70.0	0.0	0.0	1.7	0.0	1.7	-	-	0.0	3.1	-	-
133.0	25.0	-	-	-	-	-	-	0.0	1.5	1.7	1.6	-
133.0	60.0	0.0	0.0	0.0	0.0	3.8	-	-	-	-	-	-
137.0	23.0	-	-	-	-	-	-	3.3	5.1	2.4	0.0	-
137.0	30.0	-	-	-	-	-	-	0.0	0.0	6.1	0.0	-
137.0	50.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-	-
137.0	60.0	2.1	3.9	0.0	0.0	0.0	-	-	-	-	-	-
140.0	30.0	-	-	-	-	-	-	-	23.0	-	-	-
140.0	35.0	-	1.9	-	-	0.0	-	-	15.8	-	-	-
140.0	60.0	-	1.9	-	-	0.0	-	-	0.0	-	-	-
140.0	80.0	-	0.0	-	-	1.9	-	-	-	-	-	-
143.0	30.0	-	1.7	-	-	0.0	-	-	0.0	-	-	-
147.0	20.0	-	19.0	-	-	-	-	-	0.0	-	-	-
147.0	25.0	-	0.0	-	-	0.0	-	-	1.5	-	-	-
147.0	30.0	-	2.9	-	-	0.0	-	-	0.0	-	-	-
150.0	40.0	-	1.7	-	-	0.0	-	-	0.0	-	-	-
150.0	60.0	-	3.6	-	-	0.0	-	-	0.0	-	-	-
150.0	70.0	-	7.7	-	-	0.0	-	-	2.5	-	-	-
153.0	16.0	-	-	-	-	-	-	-	2.5	-	-	-
153.0	50.0	-	1.8	-	-	0.0	-	-	-	-	-	-
157.0	10.0	-	1.5	-	-	0.0	-	-	2.5	-	-	-

## Unidentified fish larva

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	100.0	-	-	0.0	0.0	3.5	0.0	-	-	-	0.0	-
67.0	65.0	0.0	-	0.0	0.0	3.7	0.0	0.0	-	-	0.0	-
70.0	60.0	1.8	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-



TABLE 4. (cont.)

## Unidentified fish larva (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	70.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.6	-
70.0	120.0	-	-	-	-	3.7	0.0	0.0	-	-	-	-
77.0	50.0	-	-	-	-	-	0.0	0.0	-	0.0	0.8	-
80.0	55.0	0.0	0.0	0.0	0.0	1.7	14.3	-	0.0	-	0.0	-
80.0	60.0	1.9	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
80.0	90.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	-	3.3	-
80.0	100.0	0.0	2.8	0.0	-	0.0	0.0	-	0.0	-	0.0	-
80.0	130.0	0.0	1.6	0.0	-	-	-	-	-	-	-	-
85.0	38.0	-	-	-	-	-	-	0.0	2.7	-	1.2	8.7
85.0	40.0	-	0.0	-	-	-	4.7	9.5	0.0	-	0.0	0.0
87.0	35.0	3.5	-	0.0	0.0	-	-	7.5	-	-	-	-
87.0	50.0	-	-	0.0	4.1	0.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	0.0	-	0.0	5.5	0.0	0.0	-
90.0	30.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	-
90.0	37.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
90.0	45.0	1.7	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
90.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0	100.0	0.0	5.5	0.0	4.4	0.0	0.0	0.0	-	-	-	-
90.0	120.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	-	-	-
93.0	27.0	-	-	-	-	-	-	0.0	0.0	1.1	-	0.0
93.0	40.0	1.8	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
93.0	80.0	0.0	4.7	0.0	1.7	0.0	0.0	0.0	-	-	-	-
93.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
97.0	30.0	-	-	-	-	-	0.0	2.0	1.4	0.0	-	1.5
97.0	40.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
97.0	90.0	0.0	0.0	0.0	1.8	0.0	0.0	-	-	-	-	-
100.0	29.0	-	-	-	-	-	-	0.0	0.0	1.4	-	0.0
100.0	30.0	1.9	6.5	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0
100.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0	70.0	1.8	0.0	1.5	1.9	0.0	0.0	0.0	2.2	0.0	-	-
100.0	80.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0
100.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-
103.0	30.0	-	-	0.0	0.0	0.0	0.0	-	0.0	2.1	-	-
103.0	60.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.4	-
105.0	40.0	0.0	-	-	0.0	0.0	-	2.7	-	-	-	-
107.0	32.0	-	-	-	-	-	-	-	8.3	3.0	0.0	-
107.0	35.0	-	0.0	0.0	0.0	1.8	-	-	0.0	1.3	0.0	-
107.0	60.0	-	0.0	0.0	2.3	0.0	-	-	-	-	-	-
110.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
110.0	40.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	4.2	0.0	0.0
110.0	60.0	0.0	0.0	1.8	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
110.0	70.0	0.0	0.0	2.1	0.0	0.0	-	-	-	-	-	-
110.0	100.0	0.0	1.7	0.0	0.0	0.0	-	-	-	-	-	-
110.0	110.0	0.0	-	4.3	0.0	0.0	-	-	-	-	-	-
113.0	50.0	1.9	0.0	0.0	0.0	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

## Unidentified fish larva (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0	60.0	0.0	1.8	0.0	0.0	0.0	-	-	-	-	-	-
115.0	27.0	-	-	-	-	-	-	15.1	3.1	0.0	1.3	0.0
115.0	30.0	-	-	-	-	-	-	3.8	2.8	0.0	0.0	0.0
115.0	35.0	-	-	-	-	-	-	0.0	2.7	2.9	0.0	0.0
117.0	40.0	2.1	0.0	0.0	0.0	0.0	-	-	-	-	-	-
120.0	25.0	-	-	-	-	-	-	45.8	-	2.2	7.7	0.0
120.0	30.0	-	-	-	-	-	-	20.5	-	1.6	0.0	0.0
120.0	35.0	12.9	0.0	0.0	10.0	0.0	0.0	31.5	-	0.0	0.0	0.0
120.0	45.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	3.2
120.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	-	0.0	0.0	0.0
120.0	60.0	0.0	0.0	0.0	0.0	0.0	2.1	5.6	-	0.0	0.0	-
120.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
120.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	-
123.0	37.0	-	-	-	-	-	-	0.0	8.3	-	50.3	32.4
123.0	40.0	12.1	0.0	0.0	2.2	-	0.0	0.0	1.6	-	15.2	25.3
123.0	50.0	2.9	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-
127.0	34.0	-	-	-	0.0	-	-	1.6	8.0	2.9	2.8	-
127.0	40.0	0.0	0.0	0.0	1.7	0.0	0.0	9.2	0.0	0.0	2.8	-
127.0	50.0	0.0	0.0	0.0	0.0	-	1.8	7.3	0.0	-	-	-
127.0	60.0	0.0	3.4	0.0	0.7	-	0.0	0.0	-	-	-	-
130.0	30.0	-	-	-	-	-	-	254.8	0.0	18.1	0.0	-
130.0	35.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	10.1	0.0	-
130.0	40.0	0.0	1.8	0.0	0.0	0.0	-	-	0.0	3.1	0.0	-
130.0	50.0	0.0	0.0	0.0	0.0	1.8	-	0.0	0.0	0.0	2.6	-
130.0	70.0	0.0	0.0	0.0	0.0	1.7	-	-	0.0	-	-	-
130.0	80.0	0.0	0.0	1.9	0.0	0.0	-	-	0.0	-	-	-
133.0	25.0	-	-	-	-	-	-	34.3	57.7	0.0	0.0	-
133.0	30.0	27.0	0.0	0.0	1.6	0.0	-	0.0	5.1	2.8	0.0	-
133.0	40.0	0.0	0.0	0.0	0.9	0.0	-	0.0	-	-	-	-
133.0	60.0	0.0	0.0	0.0	0.0	0.0	-	43.4	256.0	81.3	2.1	-
137.0	23.0	-	-	-	-	-	-	17.1	0.0	3.1	0.0	-
137.0	30.0	-	-	-	-	-	-	-	-	-	-	-
137.0	35.0	0.0	0.0	0.0	2.2	2.0	0.0	-	-	-	-	-
137.0	40.0	0.0	3.3	0.0	5.6	0.0	0.0	0.0	-	-	-	-
137.0	50.0	1.7	0.0	3.6	0.0	0.0	-	-	-	-	-	-
137.0	60.0	2.1	0.0	1.9	1.8	0.0	-	-	-	-	-	-
140.0	30.0	-	-	-	-	-	-	-	265.0	-	-	-
140.0	40.0	-	-	-	-	5.6	-	-	0.0	-	-	-
140.0	50.0	-	-	-	-	1.8	-	-	0.0	-	-	-
140.0	60.0	-	-	-	-	0.0	-	-	2.8	-	-	-
140.0	70.0	-	-	-	-	0.0	-	-	2.6	-	-	-
143.0	30.0	-	-	-	-	0.0	-	-	3.5	-	-	-
143.0	35.0	-	-	-	-	3.8	-	-	2.8	-	-	-
143.0	50.0	-	-	-	-	4.4	-	-	-	-	-	-
143.0	60.0	-	-	-	-	4.0	-	-	-	-	-	-
147.0	20.0	-	-	-	-	-	-	-	7.5	-	-	-

TABLE 4. (cont.)

Unidentified fish larva (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
147.0 25.0	-	-	0.0	-	-	0.0	-	-	3.0	-	-	-
147.0 30.0	-	-	0.0	-	-	11.9	-	-	8.1	-	-	-
150.0 19.0	-	-	-	-	-	-	-	-	7.7	-	-	-
150.0 30.0	-	-	2.0	-	-	0.0	-	-	2.4	-	-	-
150.0 60.0	-	-	1.8	-	-	0.0	-	-	2.8	-	-	-
150.0 70.0	-	-	0.0	-	-	0.0	-	-	2.5	-	-	-
150.0 80.0	-	-	0.0	-	-	0.0	-	-	2.9	-	-	-
150.0 90.0	-	-	-	-	-	0.0	-	-	5.5	-	-	-
150.0 100.0	-	-	-	-	-	-	-	-	7.6	-	-	-
153.0 16.0	-	-	-	-	-	-	-	-	109.1	-	-	-
153.0 20.0	-	-	2.1	-	-	0.0	-	-	10.9	-	-	-
153.0 30.0	-	-	0.0	-	-	2.2	-	-	-	-	-	-
157.0 10.0	-	-	3.1	-	-	8.8	-	-	45.0	-	-	-
157.0 20.0	-	-	1.5	-	-	31.4	-	-	7.8	-	-	-
157.0 40.0	-	-	1.6	-	-	3.9	-	-	-	-	-	-

TABLE 5. Summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1951 to 1960. Taxa are listed in the same order as Table 4.

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
<i>Albula vulpes</i>	3	-	-	-	-	-	1	-	-	-
Anguilliformes	35	26	15	30	4	11	33	36	33	16
<i>Etrumeus acuminatus</i>	25	18	28	28	5	8	27	45	31	29
<i>Opisthonema</i> spp.	1	4	-	1	-	4	3	4	1	-
<i>Sardinops sagax</i>	167	269	221	375	255	167	174	193	172	142
Engraulidae	-	-	-	-	1	-	-	2	2	-
<i>Engraulis mordax</i>	394	524	686	760	569	537	581	785	888	979
Alepocephalidae	2	-	-	-	1	-	-	-	-	-
<i>Argentina sialis</i>	55	68	89	110	81	77	56	31	30	53
<i>Microstoma microstoma</i>	21	28	18	39	22	17	16	34	25	23
<i>Nansenia candida</i>	29	17	18	27	8	13	7	17	13	20
<i>Nansenia crassa</i>	50	63	65	47	61	32	74	49	27	38
<i>Bathylagus</i> spp.	-	-	-	1	3	1	4	13	7	3
<i>Bathylagus milleri</i>	1	-	-	1	1	2	-	1	1	1
<i>Bathylagus ochotensis</i>	153	222	208	195	162	171	111	237	106	190
<i>Bathylagus pacificus</i>	12	15	4	11	2	-	2	24	13	2
<i>Bathylagus wesethi</i>	259	370	258	365	286	157	298	377	275	184
<i>Leuroglossus schmidti</i>	-	-	-	-	-	3	-	-	-	-
<i>Leuroglossus stilbius</i>	402	502	612	517	508	465	343	350	324	505
Osmeridae	-	-	-	-	-	2	-	-	-	2
Stomiiformes	-	1	16	6	3	3	2	9	13	17
<i>Cyclothone</i> spp.	253	283	161	184	184	74	240	317	514	271
<i>Diplophos taenia</i>	8	1	-	4	1	3	3	28	36	18
<i>Ichthyococcus</i> spp.	16	23	12	26	30	3	18	37	43	8
<i>Vinciguerrria lucetia</i>	532	474	329	425	338	225	574	882	1209	635
Sternoptychidae	38	67	68	49	41	29	63	86	94	66
<i>Chauliodus macouni</i>	55	69	47	54	49	54	48	75	72	69
<i>Idiacanthus antrostomus</i>	48	31	14	19	10	6	19	33	38	36
<i>Aristostomias scintillans</i>	16	8	10	2	4	2	10	11	11	5
<i>Bathophilus</i> spp.	4	-	2	1	5	3	4	4	7	10
<i>Tactostoma macropus</i>	20	15	-	11	-	-	9	2	2	7
<i>Stomias atriventer</i>	96	120	86	124	87	20	67	182	181	142
Myctophiformes	-	-	-	-	-	-	-	-	-	2
<i>Anotopterus pharao</i>	1	-	-	-	-	-	1	-	-	-
Evermannellidae	-	-	-	-	1	-	-	-	6	3
Paralepididae	169	179	95	123	80	59	92	145	165	108
<i>Aulopus</i> spp.	1	-	-	-	-	-	1	-	-	-
<i>Scopelosaurus</i> spp.	-	-	-	-	1	1	-	3	16	15
Scopelarchidae	59	54	17	28	34	16	43	50	93	63
Myctophidae	99	186	59	53	60	55	175	174	245	317
<i>Ceratoscopus townsendi</i>	140	78	33	41	58	36	165	159	373	156
<i>Diaphus</i> spp.	116	156	63	111	81	101	66	90	103	76
<i>Lampadena urophaos</i>	39	22	393	10	10	14	63	44	120	46
<i>Lampanyctus</i> spp.	576	555	-	154	58	45	125	121	260	209
<i>Lampanyctus regalis</i>	-	-	-	19	19	14	26	28	46	12
<i>Lampanyctus ritteri</i>	-	-	-	308	296	214	306	416	429	311



TABLE 5. (cont.)

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
<i>Notolychnus valdiviae</i>	5	4	4	2	1	2	-	1	3	12
<i>Notoscorpelus resplendens</i>	16	4	10	8	23	1	31	24	76	64
<i>Stenobrachius leucopsarus</i>	369	405	365	452	251	395	267	361	327	386
<i>Triphoturus mexicanus</i>	589	715	573	565	475	322	641	768	1069	808
<i>Centrobranchus</i> spp.	-	-	-	-	-	-	-	-	-	1
<i>Diogenichthys</i> spp.	10	3	2	-	6	3	30	35	79	97
<i>Diogenichthys atlanticus</i>	109	112	68	87	90	85	109	126	116	121
<i>Diogenichthys laternatus</i>	230	233	232	346	265	113	412	416	442	210
<i>Electrona rissoi</i>	15	4	4	-	1	-	-	-	2	1
<i>Gonichthys tenuiculus</i>	49	44	38	45	37	12	81	126	181	55
<i>Hygophum</i> spp.	29	20	23	10	6	6	15	47	91	73
<i>Hygophum atratum</i>	47	35	33	36	43	22	88	96	138	21
<i>Hygophum proximim</i>	-	-	-	-	-	-	-	-	-	2
<i>Hygophum reinhardtii</i>	17	14	1	5	13	7	20	6	16	44
<i>Loweina rara</i>	19	18	33	29	14	5	7	8	9	10
<i>Myctophum aurolaternatum</i>	6	-	-	1	1	4	3	13	4	4
<i>Myctophum nitidulum</i>	30	34	7	11	13	13	27	56	105	43
<i>Protomycotophum crockeri</i>	370	345	211	293	312	243	254	360	424	417
<i>Symbolophorus californiensis</i>	206	183	132	146	102	60	142	216	191	109
<i>Tarletonbeania crenularis</i>	306	399	243	164	103	236	116	90	113	222
<i>Synodus</i> spp.	41	63	44	82	41	39	70	53	66	51
<i>Bregmaceros</i> spp.	2	-	-	1	3	-	13	11	13	19
<i>Merluccius productus</i>	351	366	417	543	439	365	331	541	340	468
Moridae	1	-	-	-	-	-	5	-	-	-
<i>Physiculus</i> spp.	9	-	-	-	-	2	8	5	2	3
Macrouridae	5	4	6	15	3	6	2	7	3	4
Ophidiiformes	68	53	52	37	26	37	74	61	43	41
<i>Brosomphycis marginata</i>	9	18	9	19	6	12	14	16	10	3
Carapidae	2	1	1	3	1	2	-	4	-	1
<i>Chilara taylori</i>	6	17	-	8	14	9	6	-	17	8
<i>Ophidion scrippsae</i>	17	13	5	17	4	19	53	15	44	43
<i>Porichthys</i> spp.	2	-	1	-	-	-	-	-	-	1
Antennariidae	1	-	-	-	-	-	1	-	-	-
Ceratioidei	3	3	-	2	-	2	16	16	50	19
Lophiidae	-	-	-	-	-	-	-	-	1	-
Gobiesocidae	-	1	-	-	1	-	1	1	-	1
Exocoetidae	8	2	6	1	-	1	5	1	6	4
Hemiramphidae	5	-	-	-	-	-	-	-	-	-
<i>Cololabis saira</i>	53	28	42	22	54	23	14	28	20	16
Atherinidae	2	6	3	7	3	3	1	2	1	1
Trachipteridae	32	40	28	17	13	12	28	31	12	32
<i>Melamphaes</i> spp.	221	233	151	189	166	138	212	238	209	157
<i>Poromitra</i> spp.	1	4	12	28	4	18	21	4	17	19
<i>Scopeloberyx robustus</i>	-	-	-	-	-	-	-	-	-	3
<i>Scopelogadus bispinosus</i>	4	4	1	15	6	5	26	27	60	26
Fistulariidae	-	-	-	-	-	-	-	1	-	-
<i>Macroramphosus gracilis</i>	1	-	-	-	2	-	2	-	1	1
<i>Syngnathus</i> spp.	5	6	12	4	6	2	5	-	3	7

TABLE 5. (cont.)

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Agonidae	2	4	12	23	10	7	11	11	8	8
Anoplopoma fimbria	-	1	1	-	-	-	-	-	-	-
Cottidae	24	36	22	49	57	37	31	20	27	30
Scorpaenichthys marmoratus	6	8	3	17	4	13	3	6	4	6
Cyclopteridae	4	13	16	8	5	8	3	4	2	11
Hexagrammidae	1	-	-	-	-	-	1	2	-	1
Ophiodon elongatus	-	1	-	-	2	1	1	3	-	-
Oxylebius pictus	-	-	4	3	-	7	4	12	3	9
Zaniolepis spp.	-	1	9	5	4	9	2	6	6	9
Scorpaenidae	10	9	2	-	-	1	1	-	2	2
Scorpaena spp.	-	-	-	-	-	15	30	9	28	29
Sebastes spp.	600	686	771	841	637	613	558	665	602	572
Sebastolobus spp.	24	16	2	1	-	2	5	2	10	25
Prionotus spp.	24	19	12	13	-	19	30	25	28	17
Blennioidei	2	-	-	-	-	1	2	-	-	1
Bathymasteridae	-	-	-	-	-	-	-	-	-	1
Hypsoblennius spp.	18	32	38	27	14	11	26	51	59	47
Clinidae	7	4	12	19	15	17	14	20	15	18
Gobiidae	116	107	61	113	56	71	93	84	108	67
Icosteus aenigmaticus	1	4	-	-	-	1	-	-	2	3
Labridae	74	135	93	124	57	39	97	82	122	75
Pomacentridae	-	-	-	14	4	8	24	9	18	2
Chromis punctipinnis	37	27	-	21	-	18	12	16	16	38
Hypsypops rubicundus	-	-	-	-	-	-	-	-	2	-
Mugil spp.	2	-	-	1	-	2	1	-	9	3
Apogonidae	1	-	2	2	-	-	15	3	5	4
Brama spp.	4	1	-	2	2	-	10	5	9	6
Carangidae	15	14	-	9	-	9	10	15	26	12
Seriola spp.	-	-	-	1	-	-	-	-	1	1
Seriola lalandi	-	-	-	5	2	11	36	7	36	21
Trachurus symmetricus	372	419	322	373	369	217	295	328	286	227
Coryphaena hippurus	-	-	-	-	-	6	24	13	27	7
Gerreidae	-	-	-	-	-	-	13	5	7	8
Haemulidae	-	-	-	-	-	-	14	6	11	17
Girella nigricans	-	5	-	-	-	3	3	4	2	4
Medialuna californiensis	9	11	-	17	5	5	12	2	1	4
Caulolatilus princeps	-	-	-	12	4	8	10	2	10	9
Mullidae	-	-	-	-	-	-	-	-	6	-
Priacanthidae	-	-	-	-	-	-	-	-	1	-
Sciaenidae	12	61	30	90	61	58	70	76	71	74
Serranidae	20	29	10	29	1	8	17	31	66	39
Gempylidae	2	1	-	-	-	-	-	6	4	10
Scombridae	-	1	-	1	2	-	7	4	3	40
Auxis spp.	9	1	1	1	-	9	23	3	20	-
Euthynnus spp.	-	-	-	-	-	4	1	-	3	-
Sarda chiliensis	-	-	-	-	-	-	-	2	9	2
Scomber japonicus	59	73	97	119	93	39	71	81	65	45
Scomberomorus spp.	1	-	-	-	-	1	1	3	2	-

TABLE 5. (cont.)

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
<i>Thunnus albacares</i>	-	-	-	-	-	-	-	8	2	-
Trichiuridae	23	31	16	36	25	28	47	24	61	45
<i>Sphyræna argentea</i>	14	16	5	6	3	14	15	15	27	28
<i>Icichthys lockingtoni</i>	125	139	114	125	105	95	70	79	74	86
Nomeidae	-	-	-	-	-	-	5	2	9	3
<i>Peprilus simillimus</i>	14	50	28	38	47	34	37	26	22	12
<i>Tetragonurus cuvieri</i>	29	17	8	10	65	146	124	17	26	29
Chiasmodontidae	24	33	16	31	24	14	57	59	75	34
Uranoscopidae	1	-	-	-	-	-	1	1	1	2
Pleuronectiformes	9	13	48	46	13	6	5	11	5	16
Bothidae	-	1	-	-	-	-	-	-	-	-
<i>Bothus</i> spp.	-	-	-	-	-	-	-	-	-	-
<i>Citharichthys</i> spp.	428	524	561	147	158	82	127	118	121	151
<i>Citharichthys fragilis</i>	-	-	-	152	107	93	125	101	106	137
<i>Citharichthys platophrys</i>	-	-	-	-	-	-	-	-	1	-
<i>Citharichthys sordidus</i>	-	-	-	109	56	59	62	69	48	20
<i>Citharichthys stigmaeus</i>	-	-	-	347	206	207	191	136	134	101
<i>Citharichthys xanthostigma</i>	-	-	-	189	163	106	208	130	118	117
<i>Etropus</i> spp.	-	-	-	4	-	-	16	16	20	14
<i>Hippoglossina</i> spp.	1	-	-	-	-	-	-	-	-	1
<i>Hippoglossina stomata</i>	13	27	42	57	22	34	44	33	32	39
<i>Paralichthys</i> spp.	-	-	-	-	-	-	-	1	-	1
<i>Paralichthys californicus</i>	18	50	19	42	22	23	30	48	37	39
<i>Syacium ovale</i>	5	2	1	3	-	2	6	8	8	1
<i>Xystreurus liolepis</i>	3	16	10	5	4	1	7	2	5	8
<i>Eopsetta jordani</i>	-	1	-	-	-	-	-	-	-	-
<i>Glyptocephalus zachirus</i>	12	25	6	9	5	8	11	14	8	7
<i>Hypopsetta guttulata</i>	-	-	2	-	-	-	-	3	1	1
<i>Isopsetta isolepis</i>	-	-	-	-	-	-	1	1	-	-
<i>Lyopsetta exilis</i>	51	80	68	116	57	74	90	50	48	50
<i>Microstomus pacificus</i>	28	30	17	17	30	19	26	20	20	15
<i>Parophrys vetulus</i>	-	31	45	51	50	36	39	62	29	30
<i>Pleuronichthys coenosus</i>	14	14	10	18	23	18	7	13	7	10
<i>Pleuronichthys decurrens</i>	17	6	13	11	17	3	5	5	5	5
<i>Pleuronichthys ritteri</i>	4	4	4	2	4	2	3	4	4	3
<i>Pleuronichthys verticalis</i>	1	8	9	-	4	5	3	3	2	2
<i>Psettichthys melanostictus</i>	3	44	24	31	26	33	40	7	7	36
<i>Symphurus</i> spp.	-	-	-	5	-	1	5	5	3	2
<i>Psittichthys melanostictus</i>	45	50	36	35	11	49	80	40	75	64
Balistidae	1	-	-	-	-	-	-	1	-	-
Tetraodontidae	2	-	-	-	1	-	-	-	-	-
Disintegrated fish larva	229	253	74	63	124	103	193	258	361	482
Unidentified fish larva	187	218	284	161	99	100	129	181	272	343

TABLE 6. List of stations which were occupied twice in one month during 1951.

Station			Month		
110.0	35.0	1	93.0	27.0	10
83.0	55.0	5	93.0	30.0	10
83.0	70.0	5	93.0	50.0	10
87.0	35.0	5	97.0	30.0	10
87.0	40.0	5	97.0	32.0	10
93.0	30.0	5	97.0	40.0	10
123.0	40.0	5	97.0	50.0	10
123.0	50.0	5	100.0	29.0	10
123.0	60.0	5	100.0	30.0	10
127.0	50.0	5	100.0	40.0	10
127.0	60.0	5	103.0	30.0	10
133.0	30.0	5	103.0	35.0	10
133.0	40.0	5	103.0	40.0	10
133.0	50.0	5	107.0	32.0	10
137.0	35.0	5	107.0	35.0	10
130.0	35.0	6	107.0	40.0	10
130.0	40.0	6	63.0	52.0	11
130.0	50.0	6	63.0	55.0	11
130.0	60.0	6	67.0	50.0	11
137.0	50.0	6	67.0	55.0	11
70.0	60.0	8	67.0	65.0	11
70.0	70.0	8	70.0	51.0	11
70.0	80.0	8	70.0	70.0	11
73.0	60.0	8	70.0	80.0	11
77.0	50.0	8	73.0	50.0	11
77.0	55.0	8	73.0	60.0	11
77.0	65.0	8	77.0	50.0	11
120.0	25.0	8	120.0	60.0	11
120.0	30.0	8	120.0	70.0	11
120.0	35.0	8			
120.0	45.0	8			
120.0	60.0	8			
120.0	70.0	8			
80.0	51.0	9			
80.0	55.0	9			
80.0	60.0	9			
80.0	70.0	9			
80.0	80.0	9			
80.0	90.0	9			
80.0	100.0	9			
83.0	55.0	9			
85.0	38.0	9			
85.0	40.0	9			
85.0	50.0	9			
90.0	70.0	9			
123.0	37.0	9			
123.0	40.0	9			





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